KITLV

Healers on the colonial market

Native doctors and midwives in the Dutch East Indies

Liesbeth Hesselink

KITLV

Koninklijk Instituut voor Taal-, Land- en Volkenkunde
Royal Netherlands Institute of Southeast Asian and Caribbean Studies

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LIESBETH HESSELINK

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Native doctors and midwives in the Dutch East Indies

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Abbreviations

AV	Algemeen Verslag (General Report)
BKI	Bijdragen tot de Taal-, Land- en Volkenkunde (Journal of the Humanities and Social Sciences of Southeast Asia and Oceania)
CBG	Centraal Bureau voor Genealogie, The Hague (Central Bureau of Genealogy)
CMS	Civil Medical Service
ENT	ear, nose and throat (physician)
Exh.	Exhibitum (agenda item)
GB	Gouvernementsbesluit (Governmental decree)
GG	Gouverneur-Generaal (Governor-General)
GTNI	Geneeskundig Tijdschrift voor Nederlandsch-Indië (Medical Journal of the Dutch East Indies)
Ind. Stb.	Staatsblad van Nederlandsch-Indië (Indies Government Gazette)
IISG	Internationaal Instituut voor Sociale Geschiedenis, Amsterdam (International Institute of Social History)
Kab.	Kabinet (cabinet)
KB	Koninklijk Besluit (Royal Decree)
KIT	Koninklijk Instituut voor de Tropen, Amsterdam (Royal Tropical Institute)
KITLV	Koninklijk Instituut voor Taal-, Land- en Volkenkunde, Leiden (Royal Netherlands Institute of Southeast Asian and Caribbean Studies)
KV	Koloniaal Verslag (Colonial Report)
MP	member of Parliament (of the Lower Chamber)
NTvG	Nederlandsch Tijdschrift voor Geneeskunde (Dutch Medical Journal)
OSVIA	Opleidingsschool voor Inlandsche Ambtenaren (School for Native Officials)
R.M.	Raden Mas

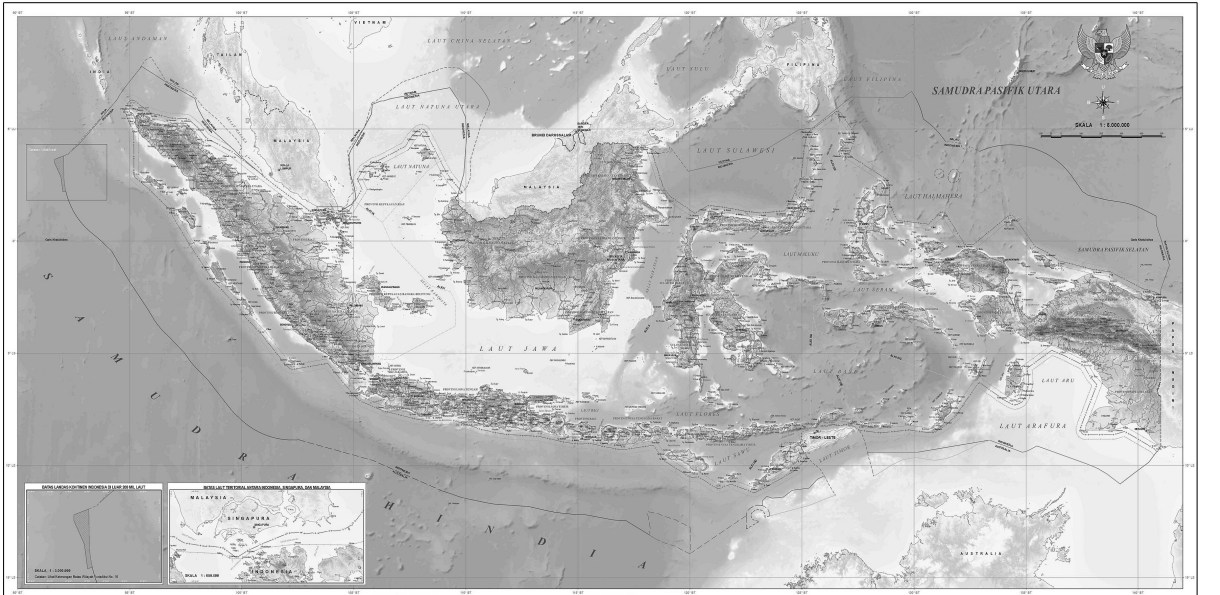
Stb.	Staatsblad (Government Gazette)
STOVIA	School tot Opleiding van Inlandsche Artsen (School for Training Native Doctors; later School for Training of Indies Doctors)
TBA	traditional birth attendant
TK	Tweede Kamer (the Lower Chamber of the Dutch parliament)
TNI	Tijdschrift voor Nederlandsch-Indië (Journal for the Dutch Indies)
Vb.	Verbaal (minute)
VOC	Vereenigde Oost-Indische Compagnie (Dutch East India Company)
Vol.	volume

Preface

Some doctoral students take their degree immediately upon completing their study, most never get around to it, and a few wait until retirement to finish it. I belong to the last group. This book is the English translation of my revised thesis. When starting my research, it seemed obvious to me that the topic would have something to do with Indonesia, the country where I grew up. In the orientation phase, I stumbled across, more or less accidentally, two schools that were set up by the Dutch government in 1851 in Jakarta: a medical school for Javanese boys and a midwives' school for Javanese girls. This is remarkable because back then the Dutch government's policy was not geared in the least to educating the indigenous population. Why was an exception made for medical training? My curiosity was aroused: I wanted to uncover the colonial government's motives for establishing these schools and what drove the indigenous students to apply to them. Who were they, what were their backgrounds, and what sorts of careers did they have after graduating? Did the training fulfill the government's objective? Did the graduates succeed in obtaining positions in the indigenous society? I was also interested in the differences due to gender between the midwives' training for girls and the doctors' training for boys.

Working for a doctorate is a lonely adventure, especially when one stands outside the academic world and has retired from working life – as I am. I would like to thank my thesis supervisors, Frances Gouda and Harm Beukers, for their mentoring and, particularly, for their enthusiasm. The combination of a historian and a medical doctor, who had never met before, worked out well in practice; their respective areas of expertise complemented each other perfectly.

PETA NEGARA KESATUAN REPUBLIK INDONESIA



Penyusun :
BADAN INFORMASI GEOSPASIAL (BIG)
Alamat Kantor dan Hubungan Per. (BIG) Jl. R. Gatot no. 1 Cibinong
Telp. Humas (62-21) 8144 4246 Fax. (62-21) 8144 4247
Email : humas@big.go.id Website : http://www.big.go.id
Edisi Tahun 2022
Dasar Proyeksi : Geografis Datum Horizontal : WGS 84 (EPSG:4979) Datum Vertikal : Earth Gravity Model 2008 (EGM2008)

Sumber Peta Rupabumi Indonesia Skala 1:250.000 dan 1:1.000.000 :
1. Badan Informasi Geospasial (BIG)
2. Pusat Pemetaan Batas Wilayah (PPBW) Badan Informasi Geospasial (BIG)
3. Direktorat Topografi Angkatan Darat (Dittopad)
4. Direktorat Hidro-Oseanografi TNI Angkatan Laut

PETUNJUK ADMINISTRASI NEGARA KESATUAN REPUBLIK INDONESIA

Peta ini menggambarkan batas wilayah Kedaulatan Negara dan Hukum Republik Indonesia di darat dan laut, luas daratan dan perairan di dalamnya, serta pulau-pulau yang membentuk Negara Kesatuan Republik Indonesia di Zona Nusantara, Zona Ekonomi Eksklusif, dan Landas Kontinen, yang penetapannya ditentukan oleh dasar Perjanjian Pemerintah Indonesia dan beberapa Pemerintah Negara tetangga yang terkait dan Hukum Internasional tentang Hukum Laut. Peta ini menggambarkan Batas Negara yang telah disepakati antara RI dan telah disetujui oleh Indonesia berdasarkan Hasil Undang-undang RI.

KONTRIBUSI

Kementerian Koordinator Bidang Politik dan Keamanan, Kementerian Koordinator Bidang Perekonomian, Kementerian Dalam Negeri, Kementerian Luar Negeri, Kementerian Pertahanan, Kementerian Hukum, Kementerian Keuangan, Kementerian Energi dan Sumber Daya Mineral, Kementerian Perhubungan, Kementerian Kelautan dan Perikanan, Kementerian Agraria dan Tata Ruang/Badan Pertanahan Nasional, Kementerian Negara Republik Indonesia, Badan Informasi Geospasial, Dinas Hidro-Oseanografi TNI Angkatan Laut.

SUMBER DATA

1. Rupabumi Nasional (BIG) Nomor 134 Tahun 2020 tentang Perubahan Data Geospasial Dasar dan Peta Rupabumi Indonesia (Edisi Tahun 2020)
2. Peraturan Kepala BIG Nomor 238 Tahun 2020 tentang Penetapan Garis Dasar Pesisir Wilayah Negara Kesatuan Republik Indonesia (Edisi Tahun 2020)
3. Shuttle Radar Topography Mission (SRTM) versi 2.0 dan ETOPO 1 versi 2.0.
4. Perjanjian Antara Pemerintah Republik Indonesia dan Pemerintah Malaysia Tentang Hukum Laut.
5. Keputusan Presiden (Keppres) Nomor 3 Tahun 2019 tentang Pengesahan Data Geospasial Batas Maritim Indonesia dan Malaysia.
6. Perjanjian Antara Pemerintah Republik Indonesia dan Pemerintah Malaysia Tentang Hukum Laut.
7. Peta Zona Ekonomi Eksklusif Indonesia (ZEEI) skala 1:500.000 dan 1:1.000.000, DISHIDROS TNI AL, 2012.
8. Peta Batas Landas Kontinen Indonesia (LKI) skala 1:500.000 dan 1:1.000.000, DISHIDROS TNI AL, 2012.
9. Peta Dasar Pengukuran Batas Maritim Indonesia skala 1 : 500.000, DISHIDROS TNI AL, 2015.
10. Elevasi Republik Indonesia (DTM) tahun 2009.

Data Batas Negara yang digambarkan pada peta ini ditetapkan dan disepakati bersama oleh Pemerintah Republik Indonesia dan Pemerintah Negara tetangga yang terkait dengan Perjanjian Bilateral dan Hukum Internasional tentang Hukum Laut.

Ketinggian :

P.	Pass	Mt	Mount
Ab.	Abandoned	I.	Island
B.	Bay	Is.	Islands
Bch.	Beach/Sand	Mts.	Mountains
Hg.	Hill	Spr.	Spring
Is.	Island	W.	Well
K.	Kilometer		

Sumber Ketinggian :

	>1000 m
	500 - 1000 m
	200 - 500 m
	100 - 200 m
	50 - 100 m
	40 - 50 m
	30 - 40 m
	20 - 30 m
	10 - 20 m
	0 - 10 m

Sumber Kedalaman :

	0 - 25 m
	25 - 50 m
	50 - 100 m
	100 - 200 m
	200 - 500 m
	500 - 1000 m
	1000 - 2000 m
	2000 - 3000 m
	3000 - 4000 m
	4000 - 5000 m
	5000 - 6000 m
	6000 - 7000 m
	7000 - 8000 m
	8000 - 9000 m
	9000 - 10000 m
	10000 - 11000 m

KEDAULATAN NEGARA KESATUAN REPUBLIK INDONESIA

Negara Kesatuan Republik Indonesia (NKRI) merupakan Negara Kepulauan (Archipelagic State) yang berbatasan dengan 10 (sepuluh) negara tetangga dan memiliki 17.504 pulau yang telah dibakukan oleh PBB, yaitu Pulau Sumatera, Pulau Jawa, Pulau Kalimantan, Pulau Sulawesi, Pulau Papua, Pulau Bali, Pulau Nusa Tenggara, Pulau Maluku, Kepulauan Riau, Kepulauan Bangka Belitung, dan Pulau Timor Leste.

1. KEDAULATAN DI WILAYAH DARAT

Wilayah darat NKRI terdiri atas daratan pada semua pulau yang termasuk di wilayah daftar pulau-pulau milik pemerintah Republik Indonesia. Khusus di Pulau Kalimantan, di Republik di Papua dan di Timor berbatasan perbatasan semuanya sebagai berikut :

1. Batas negara dengan Malaysia di P. Kalimantan dan Sebatik, mengacu kepada perjanjian antara Inggris dan Pemerintah Belanda tentang Penentuan Batas di Kalimantan pada tanggal 20 Juni 1891 dan Perjanjian antara Pemerintah Republik Indonesia dan Pemerintah Malaysia tentang Batas Wilayah di Selat Malaka pada tanggal 17 Maret 2010 (Lembaran Negara Republik Indonesia Tahun 2010 Nomor 44, 3160) dan pada 23 Oktober 1928 (Arbitrase Pemerintah Indonesia dan Pemerintah Belanda).
2. Batas negara dengan Papua Nugini di P. Papua mengacu kepada Perjanjian antara Indonesia dan Australia mengenai garis-garis Batas Dimana Kedaulatan Negara dan Hukum Hak Negara Hukum tanggal 18 Desember 1973, Yang Kedaltasi dengan Undang-undang Republik Tahun 1973 (Lembaran Negara Indonesia tahun Perjanjian Kedaulatan dan Perjanjian Papua Nugini tentang Hukum Perjanjian Hukum Negara Republik Indonesia, Batas Indonesia Tanggal, Batas Wilayah dan Tanggal 12 Januari 1973 tentang Perjanjian antara Pemerintah Republik Indonesia dan Pemerintah Kerajaan Papua Nugini).
3. Batas negara dengan Timor Leste di P. Timor mengacu kepada Perjanjian antara Pemerintah Republik Indonesia dan Pemerintah Timor Leste mengenai Penetapan Garis Laut dan tanggal 8 April 2005, sesuai dokumen No. 1 Penetapan Sementara antara Indonesia dan Timor Leste mengenai Penetapan Garis Laut dan tanggal 8 April 2005, sesuai dokumen No. 1 Penetapan Sementara antara Indonesia dan Timor Leste mengenai Penetapan Garis Laut.

2. KEDAULATAN DAN YURISDIKSI DI WILAYAH LAUT

Indonesia memiliki kedaulatan di wilayah perairan pedalaman, perairan kepulauan, dan laut teritorial serta memiliki hak berdaulat di zona tambahan, zona ekonomi eksklusif, dan landas kontinen.

Dasar Hukum hukum/ juga pedoman NKRI adalah :

1. Undang-Undang Nomor 3 Tahun 1960 tentang Zona Ekonomi Eksklusif Indonesia.
2. Undang-Undang Nomor 37 Tahun 1999 tentang Pengesahan United Nations Convention on the Law of the Sea (Konvensi Perserikatan Bangsa-Bangsa tentang Hukum Laut).
3. Undang-Undang Nomor 17 Tahun 1985 tentang Pengesahan Indonesia.
4. Undang-Undang Nomor 43 Tahun 2008 tentang Wilayah Negara.
5. Peraturan Pemerintah Nomor 37 Tahun 2002 tentang Hak dan Kewajiban Kapal dan Pesawat Udara Asing dalam Melaksanakan Hak Lintas Alur Laut Kepulauan Melalui Alur-alur Laut Kepulauan Yang Ditetapkan.
6. Undang-Undang Republik Indonesia Nomor 6 Tahun 1996 tentang Perairan Indonesia, sebagaimana telah diubah dengan Peraturan Pemerintah Nomor 37 Tahun 2008 tentang Perubahan atas Peraturan Pemerintah Nomor 37 Tahun 2002 tentang Hak dan Kewajiban Kapal dan Pesawat Udara Asing dalam Melaksanakan Hak Lintas Alur Laut Kepulauan Melalui Alur-alur Laut Kepulauan Yang Ditetapkan.
7. Peraturan Presiden Nomor 12 Tahun 2012 tentang Perubahan Kedua Peraturan Presiden Nomor 12 Tahun 2010 tentang Perubahan Atas Peraturan Presiden Nomor 78 Tahun 2005 tentang Pengelolaan Pulau-Pulau Kecil Terluar.
8. Peraturan Presiden Nomor 78 Tahun 2005 tentang Pengelolaan pulau-pulau Kecil Terluar.
9. Undang-Undang Nomor 32 Tahun 2014 tentang Kelautan.

Batas

A. Batas Laut Wilayah (Territorial)

1. Undang-Undang Nomor 2 Tahun 1971 tentang Perjanjian Antara Republik Indonesia dan Malaysia tentang Penetapan Garis Batas Laut Wilayah Kedua Negara di Selat Malaka.
2. Undang-Undang Nomor 8 Tahun 1971 tentang Perjanjian Antara Indonesia dan Australia Mengenai Garis-garis Batas Tertentu antara Indonesia - Papua New Guinea.
3. Undang-Undang Nomor 4 Tahun 1982 tentang Perjanjian Antara Indonesia dan Singapura tentang Penetapan Garis Batas Laut Wilayah Kedua Negara di Selat Singapura.
4. Undang-Undang Nomor 17 Tahun 1985 tentang Perjanjian Antara Republik Indonesia dan Republik Singapura tentang Penetapan Garis Batas Laut Wilayah Kedua Negara di Bagian Barat Selat Singapura.
5. Undang-Undang Nomor 1 Tahun 1973 tentang Landas Kontinen Indonesia dan Republik Singapura tentang Penetapan Garis Batas Laut Wilayah Kedua Negara di bagian Timur Selat Singapura.

B. Batas Wilayah Yurisdiksi

1. Undang-Undang Nomor 18 Tahun 2008 tentang Perjanjian antara Pemerintah Republik Indonesia dan Pemerintah Republik Demokratik Timor Leste tentang Penetapan Garis Batas Laut Wilayah Kedua Negara di Bagian Barat Laut (ZEE).
2. Undang-Undang Nomor 5 Tahun 2014 tentang Perjanjian antara Pemerintah Republik Indonesia dan Pemerintah Kerajaan Thailand tentang Penetapan Garis Batas Landas Kontinen antara Kedua Negara di Bagian Utara Selat Malaka dan Laut Andaman.
3. Keputusan Presiden Nomor 109 Tahun 1972 tentang Pengesahan antara Pemerintah Republik Indonesia dan Pemerintah Commonwealth Australia mengenai Penetapan Batas Dasar Laut Tertentu.
4. Keputusan Presiden Nomor 21 Tahun 1973 tentang Pengesahan antara Pemerintah Republik Indonesia dan Pemerintah Malaysia tentang Penetapan Batas Dasar Laut Tertentu.
5. Keputusan Presiden Nomor 42 Tahun 1971 tentang Pengesahan antara Pemerintah Republik Indonesia dan Pemerintah Republik India mengenai Penetapan Batas Dasar Laut Tertentu.
6. Memorandum Saling Pengertian antara Pemerintah Republik Indonesia dan Pemerintah Australia Mengenai Garis-garis Pedoman Tertentu Mengenai Pelaksanaan Yurisdiksi Atas Perairan Tertentu, tanggal 29 Januari 1981.
7. Keputusan Presiden Nomor 7 Tahun 1977 tentang Penetapan antara Pemerintah Republik Indonesia dan Pemerintah Kerajaan Thailand mengenai Penetapan Batas Dasar Laut Tertentu.
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10. Keputusan Presiden Nomor 51 Tahun 1997 tentang Perjanjian antara Pemerintah Republik Indonesia dan Pemerintah Australia Mengenai Batas Dasar Laut Tertentu di Wilayah Laut Timor dan Arafura.
11. Keputusan Presiden Nomor 1 Tahun 1997 tentang Pengesahan antara Pemerintah Republik Indonesia dan Pemerintah Australia Mengenai Batas Dasar Laut Tertentu di Wilayah Laut Timor dan Arafura.
12. Keputusan Presiden Nomor 89 Tahun 1998 tentang Pengesahan antara Pemerintah Republik Indonesia dan Pemerintah Australia Mengenai Batas Dasar Laut Tertentu di Wilayah Laut Timor dan Arafura.
13. Keputusan Presiden Nomor 10 Tahun 2014 tentang Pengesahan antara Pemerintah Republik Indonesia dan Pemerintah Commonwealth Australia tentang Penetapan Batas Dasar Laut Tertentu.
14. Keputusan Presiden Nomor 1 Tahun 1969 tentang Pengesahan Perjanjian antara Pemerintah Republik Indonesia dan Pemerintah Republik Filipina mengenai Penetapan Batas Dasar Laut Wilayah, Wilayah.
15. Memorandum Saling Pengertian antara Pemerintah Republik Indonesia dan Pemerintah Australia Mengenai Kerjasama Operasi Perikanan Tertentu di Celah Timor, tanggal 29 Januari 1981.
16. Memorandum Saling Pengertian antara Pemerintah Republik Indonesia dan Pemerintah Australia Mengenai Pelaksanaan Yurisdiksi Atas Perairan Tertentu, tanggal 29 Januari 1981.
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19. Keputusan Presiden Nomor 24 Tahun 1978 tentang Pengesahan antara Pemerintah Republik Indonesia dan Pemerintah Kerajaan Thailand tentang Penetapan Tiga Garis Batas dan Penetapan Garis Batas Kedua Negara di Laut Andaman.
20. Keputusan Presiden Nomor 51 Tahun 1997 tentang Pengesahan antara Pemerintah Republik Indonesia dan Pemerintah Australia Mengenai Batas Dasar Laut Tertentu di Wilayah Laut Timor dan Arafura.
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22. Keputusan Presiden Nomor 89 Tahun 1998 tentang Pengesahan antara Pemerintah Republik Indonesia dan Pemerintah Australia Mengenai Batas Dasar Laut Tertentu di Wilayah Laut Timor dan Arafura.
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24. Keputusan Presiden Nomor 1 Tahun 1969 tentang Pengesahan Perjanjian antara Pemerintah Republik Indonesia dan Pemerintah Republik Filipina mengenai Penetapan Batas Dasar Laut Wilayah, Wilayah.
25. Memorandum Saling Pengertian antara Pemerintah Republik Indonesia dan Pemerintah Australia Mengenai Kerjasama Operasi Perikanan Tertentu di Celah Timor, tanggal 29 Januari 1981.
26. Memorandum Saling Pengertian antara Pemerintah Republik Indonesia dan Pemerintah Australia Mengenai Pelaksanaan Yurisdiksi Atas Perairan Tertentu, tanggal 29 Januari 1981.

1

Introduction

MEDICAL HISTORIOGRAPHY

Until recently, the field of medical history was a specialization of medicine rather than of history. The topics were mostly written by, for and about doctors. Then in the second half of the twentieth century, a shift took place. A new generation of medical historians in the Anglo-Saxon world broke with the traditional orientation to standard medicine and made space for alternative medicine and its practitioners. The focus moved to the societal context of medical care. Henri Sigerist, a Swiss who had moved to the USA, introduced the patient into medical history. He is considered the originator of the new American social history movement (Huisman 1995:144-5). The essay by Susan Reverby and David Rosner from 1979, 'Beyond the "Great Doctors"', is held to be the manifesto of this movement (Huisman and Warner 2004:21).

For historians, anthropologists and sociologists this development was interesting, but many traditional medical history writers in the Anglo-Saxon world, primarily physicians, were not comfortable with topics that were not purely medical and written by academics who were not doctors. The editorial comment in the *Journal of the History of Medicine* (January 1980) spoke of a 'medical history without medicine' (Reverby and Rosner 2004:174). In the Netherlands, G.A. Lindeboom, the *éminence grise* of the Dutch history of medicine, feared that the new generation would have too little respect for physicians (Huisman 1995:134). This concern reflected the loss of status of medicine and its practitioners in the 1960s and 1970s. Even in the professional group itself, a new wind was blowing: the British professor of social medicine, Thomas McKeown, questioned the conviction of many of his colleagues that better medical care and medicines had spectacularly extended the average life expectancy and

ascertained that more and better food, hygiene and birth control were far more important.[1]

That the fear of a 'takeover' of medical historiography by non-medical historians was unfounded was demonstrated by Olga Amsterdamska and Anja Huizing in an analysis of articles in three medical journals (*Bulletin of the History of Medicine*, *Journal of the History of Medicine and Allied Sciences* and *Medical History*) from the period 1960-2001. It is true that the number of authors with a strictly medical background had declined from 50% in 1960-1961 to only 13% in 2000-2001. The number of historians increased proportionally from 47% to 78%. Amsterdamska and Huizinga based their research solely on the titles of the articles and ascertained that they contained less spectacular shifts than would have been expected given the changed background of the authors. They preferred to talk of diversification rather than a radical change in themes. In addition, it was apparent that primarily prestigious medical journals such as *The Lancet* cited articles from those three journals and the periodical *Social History of Medicine*. Evidently, although the authors of medical history were no longer all doctors, their articles were still read by doctors. This suggested to Amsterdamska and Huizing an explanation for the traditional orientation and isolation of the medical history field compared with other sciences (Amsterdamska and Huizing 2004:241-3, 259).

THE MEDICAL MARKET

In recent medical-historical research, the concept of the 'medical market' has become widespread. Some claim this concept was introduced concurrently about 1985 by various English-speaking scholars;[2] others ascribe the honour to Harold Cook.[3] Medical treatments are indicated by the metaphor of supply and demand on the medical market. Researchers started exploring outside the boundaries of scientifically based medical care; the alternative forms of treatment were also being covered. In addition, the role of the care recipient came to the fore, along with the many socio-cultural and socio-economic factors determining supply and demand.

1 In his book, *The role of medicine: Dream, mirage or nemesis?* (1976), Jansen 1982:91.
2 Jenner and Wallis 2007:1 cite Lucinda Beier, Roy Porter, Irvine Loudon and Harold Cook.
3 Gentilcore 1998:2; Pelling 2003:2, 342-3.

From the perspective of the demand side of care – the patients – the medical market is the entirety of available consultation and treatment options, varying from self-care, the intervention of a supernatural force to consulting a professional practitioner. The care recipients are driven by medical, emotional, economic or other motives when selecting a practitioner. They are active, participating in 'healer shopping', sometimes out of desperation, sometimes as critical consumers. Their ideas and concepts of health, disease and the environment influence their behaviour.

From the supply side's perspective – the practitioners – the market model focuses on popularity and competition. With a view to competition, it can be beneficial to spot gaps in the market and to specialize:

> Fractures, teeth, eye, smallpox and plague specialists, lithotomists, bonesetters, cataract surgeons, but also herbalists, chemists and certain apothecaries literally filled a hole in the market more or less consciously neglected by the established physicians due to the level of technical difficulty, danger to the patient's or physician's life, or even corporate reasons.[4]

It appears that regular practitioners in those days sometimes avoided risky treatments to keep their reputation unblemished and thus their competitive position with the irregular practitioners. The 'group' of irregulars is so heterogeneous that there cannot be any question of a joint reputation to uphold. An important weapon in the struggle for supremacy was maligning the competition. The regular physicians in the Netherlands called the irregulars 'quacks'. In turn, the *dukun*, the irregular, indigenous healers, invented all kinds of claims about the regulars, for example, that the smallpox vaccination was intended solely to press-gang troops for the Indies army.[5]

THE MEDICAL MARKET MODEL: A WORN CONCEPT?

Mark S.R. Jenner and Patrick Wallis (2007:1-24) were very critical about the concept of the 'medical market'. They observed that it has become

4 Chaudron 1995:11. The quotation is taken from Willem Frijhoff.

5 'When the vaccination was introduced in the Priangan, a rumour circulated that this was a "Company brand", that every boy who was so "marked" had to serve as a soldier later. For a brief while there was tension, and many fled into the jungle according to Holle', Van den Berge 1998:170.

amazingly popular and has an enormous diversity of applications. The model has many merits: It removed the almost mystical status from the medical profession, secured a place for medical laypeople, and considered patients as consumers of medical services. Some historians objected that the concept leaves little room for cultural and social factors. As it has been used in several different ways, it is thought to have lost its expressiveness and sometimes even become confusing. Perhaps it would be better to stop using the concept of the 'medical market', but given its popularity Jenner and Wallis feel this is not feasible. They would prefer to substitute 'markets for medical goods and services' for the popular and generalizing term 'medical market', as it better matches the variety of social and economic networks involved. A good term should reflect not only individual providers and consumers but also the institutional ones. For brevity's sake and because of popular use every now and then 'medical market' will be used in this book.

THE MEDICAL MARKET MODEL IN THE COLONIES

The concept of the 'medical market' has almost never been applied to a colonial society, which is by definition plural in composition. This was certainly true of the Dutch East Indies, a vast archipelago with circa 20 million inhabitants in 1850 with varied languages and cultures, all differing drastically from the ruler's. J.A.A. van Doorn (1982:130, 1994:52-3) considers mediation vital in every plural society; and given the social and cultural distances between the groups, intermediaries are required for communication. On the medical market as well, an intermediary is required between care consumers and care providers to 'translate' the social-cultural factors involved in the 'negotiation process' between patient and practitioner.

In every society, socio-cultural factors influence the social traffic between individuals and groups. If the diversity of the population groups is large, as in the colonial Dutch East Indies, the diversity of socio-cultural factors will be similarly broad. These factors are involved in the medical market in the communication between care consumers and care providers. They determine to a certain extent the 'interaction' between supply and demand and are therefore to be considered 'rules of the game'.

SOURCES

Sources can be used in different ways. They not only provide facts, they proffer insight into the selection an author makes from all the available data and thus into his/her underlying motives. The status of the source is also informative. The *dokter djawa* school and the midwives' school that are the subject of this book were given from the start their own section in the Colonial Report (*Koloniaal Verslag*), the official document that the minister of Colonies submitted each year to Parliament. The costs for the two schools were not especially high; therefore, other – political – considerations must have dictated reserving so much space for them in this important document.

Most sources covering the colonial period in the Dutch East Indies were written in Dutch, English, Malay and Javanese; unfortunately, I do not understand Javanese. Here, primarily the Dutch sources are used, mainly official documents written by European men. We must be aware that they communicate a one-sided picture. In his article 'Dutch historical sources', Graham Irwin (1965:234-5) ascertained that the Dutch sources – both official and personal – do indeed mostly focus on the colonial government and the life of the Europeans, but they also contain some information about the non-European society. We must consider that the authors sometimes portrayed a rather rosy situation. For example, the assistant-resident of Bankulen would not have been happy with vaccine reports recording many more victims than earlier reports because this would have harmed his chances of promotion.[6] Godelieve van Heteren is convinced that the judgement of indigenous medicine in the Dutch East Indies offered by Dutch physicians closely reflected their vision of society. In her article 'Which differences will have to go? The variety of physiological differentiations in the colonial context of Java 1860-1900', she named the physician A.G. Vorderman as an example. He was clearly interested in native and Chinese medicine and published articles about them. He accused his colleague C.L. van der Burg, author of the three-volume standard work *De geneesheer in Nederlandsch-Indië* (The physician in the Dutch East Indies), of castigating the midwives as incompetent and paying too little attention to the role of the *dukun* (Van Heteren 1996:6).

6 Pruys van der Hoeven 1864:21. Pruys suggests that this opinion came from a *controleur.* It is, however, quite likely that it was his personal opinion.

Only at the end of the nineteenth century did several native men (and women) start writing themselves. They were definitely not representative of their fellow countrymen, the majority of whom were illiterate. An important indigenous source is the *Tijdschrift voor Inlandsche Geneeskundigen*, which appeared between 1893 and 1922. In the very first issue, the editor C. Eijkman, the director of the *dokter djawa* school and later Nobel prize winner, described the aim of the periodical: meeting the urgent need of the *dokter djawa* to keep in touch with his field and expand his knowledge. The school's teaching staff and occasionally a student from the senior class produced the contents. Graduates also sent in case reports from their practice. Aside from this periodical, there were several indigenous sources written by men from the elite, or even the nobility, as memoirs at the end of their lives. Only one, the observations of Soetomo, was set down like a diary throughout the author's career.

Not one source contains original material written by the *dukun* themselves, the largest group of providers in the medical market. They can definitely be called the silent majority. Luckily, modern medical and cultural anthropology provides useful literature to cover the gap. Clifford Geertz, Parsudi Suparlan and Mark Woodward conducted fieldwork on Java around 1960, 1970 and 1980, respectively. The fieldwork of Roy Jordaan on Madura around 1980 is also relevant for describing the 'market of medical goods and services' in the Dutch East Indies. The question remains, of course, to what extent their findings reflect the Javanese and Madurese in the nineteenth century.

COLONIAL MEDICAL HISTORIOGRAPHY

The historiography of the medical history of the Dutch East Indies is scarce. We have the reference works of D. Schoute, who was a surgeon by profession, but a historian of medical science by vocation (Schierbeek 1955:78). After his publication about the Dutch East India Company era, *De geneeskunde in den dienst der Oost-Indische Compagnie in Nederlandsch-Indië* (Medicine in the service of the East India Company in the Netherlands Indies, 1929), he wrote a second standard work, *De geneeskunde in Nederlandsch-Indië gedurende de negentiende eeuw* (Medicine in the Netherlands Indies throughout the nineteenth century, 1936). Both are still used as works of reference. Schoute described the situation from a Western standpoint, paying considerable attention to the indigenous

population but little to the indigenous medicine and the *dukun*. He drew the readers' attention to the progressive ideas and deeds of Willem Bosch as head of the Medical Service. A.H. Borgers elaborated further on this in his thesis, *Doctor Willem Bosch en zijn invloed op de geneeskunde in Nederlandsch Oost-Indië* (Dr. Willem Bosch and his influence on medicine in the Netherlands East Indies, 1941). In the same year a dissertation was published by a former missionary doctor, J.A. Verdoorn, *Verloskundige hulp voor de inheemsche bevolking van Nederlandsch-Indië* (Midwifery assistance for the indigenous population of the Netherlands Indies). His approach was dominated by the contact that he had had with the indigenous population. The two other dissertations about the subject published before the Second World War are less relevant for this study (Penris 1930; Boelman 1936).

After a long silence, the thread was picked up by D. de Moulin, professor of the history of medicine in Nijmegen. In the 1980s he was the only scholar interested in the medical history of the Indonesian archipelago (De Knecht-van Eekelen 1989a:1). He supervised a master's thesis (Lauw 1987), which gave a good impression of the first 25 years of the *dokter djawa* school, and a dissertation (Den Hertog 1991). On the occasion of his 70th birthday, a symposium was organized for him; the papers presented were published in the compilation *Nederlandse geneeskunde in de Indische archipel 1816-1942* (Dutch medicine in the Indies archipelago, 1989). Peter Boomgaard, professor at the University of Amsterdam, seems to have taken over from De Moulin. He has written a number of articles about aspects of health care in the Dutch East Indies. Together with Rosalia Sciortino and Ines Smyth, he was the editor of the compilation *Health care in Java* (1996).

The amount of writing on the medical history of the Dutch East Indies is thus limited and dates partly from before the Second World War. It is all rather traditional historiography, narrative and descriptive in nature. The discussion in the Anglo-Saxon world about medical history writing from the 1980s onwards largely bypassed the medical history of the Dutch East Indies. The missionary doctor Verdoorn forms an exception to this. In his dissertation he places midwifery emphatically in a social context, thereby conducting social medical history *avant la lettre*. Other exceptions include the article by Susan Abeyasekere (1987) about the medical market in Jakarta in the nineteenth century and the one by Hilary Marland (2003) who, in her description of the strategy with

which midwives in the Dutch East Indies were employed to civilize the population, drew a parallel with the situation in the Catholic south of the Netherlands. Both regions were considered backwards by the Protestant-Christian political centre.

A NOTE ON SPELLING AND USAGE

The geographical names employed in the colonial period have been modernized, thus Jakarta for Batavia and its suburb Weltevreden; Bogor for Buitenzorg; Surabaya rather than Soerabaja. For each town or village, the residency is given in parentheses, for example, Kudus (Semarang). The names of institutions, however, have been rendered in their original spelling, thus Vereeniging tot Bevordering der Geneeskundige Wetenschappen in Nederlandsch-Indië (Association for the Advancement of Medical Science in the Netherlands Indies). Just a few Malay terms have been used that are so typical that they are hard to translate, such as *dokter djawa*. All quotations – as is all the text – are translated by Alison Fisher. Several descriptions, concepts and phrases that appear in this book are reminders of Indonesia's colonial past. This was difficult to avoid in a monograph like this. Given that it is an anachronism to speak of Indonesians in the period covered in this book (1850-1915), the terminology will be used that was common at that time. In those days Indonesians were labelled 'natives' or 'the population'; the latter term is factually incorrect as Europeans and Chinese also formed part of the population. The majority of the Europeans was of mixed descent – the Indo-Europeans – and/or had been born in the Indies.

2

The medical market around 1850

The 'market for medical goods and services' has consumers and suppliers. Let us start with the consumers for, after all, 'no sufferers, no doctors' (Porter 1985:182). It is difficult to obtain information from people about their diseases and their treatment. This is true for modern-day anthropologists (Jordaan 1985:11; Courtens 2008:7) and definitely applies to the historical sources dating from the period around 1850 in the Dutch East Indies, when both schools highlighted in this book did not yet exist. Nevertheless, the orally transmitted data do give us an idea of the medical market in the mid-nineteenth century.

THE CONSUMERS

All the inhabitants of the archipelago were consumers of 'products and services' from the medical market at some time or another. Specific figures for the number of inhabitants of the Dutch East Indies are lacking, but according to an estimate from 1850, the population of Java (and Madura) was 9.5 million and the Outer Islands 10.5 million.[1] In Java and Madura alone there was a large diversity of population groups: Javanese, Sundanese, Madurese, Chinese, Arab, Malay and Eurasian. These groups spoke different languages and had their own religions and concepts about health, disease and treatment. Religion and world views determine how health and disease are defined and thus the way in which they are dealt with. If people do not consider something a disease, they are unlikely to search for treatment and thus use products or services from the medical market.

[1] *KV* 1850:4; for the Outer Islands, *KV* 1850 refers to *KV* 1849:5-6.

The vast majority of the indigenous population of Java was Islamic, although it was said that 'Java was not Islamized, but Islam was Javanized':[2] many local customs and practices were adopted from earlier Javanese religions, like animism, Hinduism and Buddhism (*Indonesia* 1971:1225). In the Javanese concepts of health and disease, the various religious influences can be recognised.[3] Most historical sources, including an official in the Indies civil service, H.A. van Hien, and the ethnographer, J.P. Kleiweg de Zwaan, ascribed a dominant position to the animistic substrate in the Javanese concepts about health and disease.[4]

ANIMISM

According to animistic belief, not only people have souls, but animals, plants and objects do as well. This soul is thought to be made of a delicate material referred to as 'soul substance' (Kruijt 1906:2; Kreemer Jr. 1915:16). The soul provides the life force; a reduction of soul substance leads to disease and ultimately to death. An individual's soul substance can decrease as a result of strong emotions like a deep longing for someone who has died, or under the influence of sorcery, or when an angry spirit or other supernatural creature robs the soul (Kleiweg de Zwaan 1916:1707). Sambang, an angry spirit roaming in search of victims and acting as the personification of unhealthy winds and vapours, apparently caused many diseases. With offerings, incense and other magical methods, he could be appeased (Van Hien 1896:10). Conflicts between two angry spirits could cause an epidemic. The local population ascribed the epidemic on Central Java in 1847 to a quarrel between two mountain spirits.[5] On Buru (Maluku), the inhabitants even considered the Dutch capable of sending an angry spirit to bring disease (Kleiweg de Zwaan 1910:254). People considered the Dutch that powerful, but also that evil.

2 Penders 1977:236. Ricklefs (2007:30) talks about 'the "mystic synthesis" of Javanese Islam'.

3 In the year 1979 – at the ASEAN mental health teaching seminar in Jakarta – people did not dare to comment about whether there were still traces of the Unani, Ayurveda or Chinese medicine in the treatment methods of traditional healers in Indonesia, *Specific recommendation* 1983:6.

4 Van Hien 1896, I:1-2. P.J. Veth (1875:311) ascertained that fundamentally the majority of Javanese remained faithful to their old nature worship. Modern anthropologists such as Mark Woodward (1985:1011) and Roy Jordaan (1985:153) recognised the great importance of the Hindu influences from southern India.

5 Letter from Rochussen to Baud 25-8-1847 no. (25) 64; Baud 1983b:275; cause is angry spirits (the shades of their relatives), Jeronymus 1849:7.

The origin of disease was ascribed to worms, poisoning, magic and winds.[6] Catching cold, for example, was a consequence of the wind, *masuk angin* (literally entrance of the wind). According to health officer C.G.C.F. Greiner (1875:178), the inhabitants of the archipelago understood the infectious nature of many diseases. They talked about disease germs and linked colour and contamination. When visiting smallpox patients, he had to wear white clothes preferably, and definitely not black ones. He did not dismiss this as nonsense and argued for further investigation. Civil servant J. Kreemer Jr. (1915:10) confirmed that the natives were aware of the infectious nature of a number of diseases, as evident from a range of prophylactic measures such as isolating the sick and burning their clothes.

The natives' behaviour around disease was influenced by their concepts about its causes. They rarely complained about external diseases or wounds, in the experience of civil physician J.H.F. Kohlbrugge (1910:81-2). Health officer J. Haga (1880:28) confirmed that this was a known fact (see also Van Bergen 2007:899). With internal diseases, however, a native soon felt very ill. The spirit had taken part of his soul substance and that worried him so much that he felt it was impossible to go on working (Kohlbrugge 1910:81-2). This partly matches the findings of the modern-day anthropologist Adriaan S. Rienks and the sociologist Purwanta Iskandar (1988:76-9) that the Javanese distinguish between severe and simple diseases. The severity is not determined by the nature, but by the cause. The aetiology of severe diseases can be inappropriate social or religious behaviour, or transgression of the *adat* (indigenous customs and law) or the revenge of an angry spirit. A serious injury after a fall from a tree is an example of a simple disease because the cause is just carelessness. Simple diseases can mostly be treated by the person on his/her own, but for severe diseases a healer must be called in.

6 Three causes (spirits, winds and worms) were listed in *Geneeskundigen (Inlandsche)* 1917:768; magic in *Geneeskundigen (Inlandsche)* 1939:141. Kreemer Jr. (1908:446) described how worms could cause disease: from birth, every body harbours various worms. Normally, they do no harm, but if someone eats bad food or drinks contaminated water, then the worms look for an exit and make the person sick (for example, diarrhoea, cholera, vomiting).

ISLAM

This blending of Islam with older religious concepts could explain why the Islamic practice of medicine, Unani, never gained a foothold in Java. Nevertheless, several of the animistic terms described above can also be found in Unani medicine. There are three major medical traditions, one from Greece (the Galenic-Islamic, also known as Arabic-Persian or Unani; Dunn 1977:145), one from the Indian subcontinent (Ayurveda) and one from China. They have several fundamental terms in common because all three are based on general physiological and cosmological concepts. They all use the theory of humours with the contrasts warm-cold, dry-wet and male-female. Imbalance causes disease. The balance is affected by age, gender, diet and climate. To form a diagnosis, you observe the physical symptoms and the environment. Therapy involves physical manipulation, diet and medication. These three major medical traditions promote belief in a close relationship between the balance in the human body, the local community and the cosmos (Leslie 1977:4).

On Java there were orthodox Islamic centres just like elsewhere in the archipelago, including Banten, Kudus and Demak. The arrangement of the Koran does not make it easy to distil a clear vision of disease and health from it. Certain quotations from the Prophet suggest to many pious Muslims that suffering is a religious virtue and disease a sign of saintliness. 'Whoever dies in a sickbed, dies the death of a martyr' is one such quotation that does not encourage undergoing medical therapy. In addition, the conviction that illness comes from Allah can be a hindrance to seeking treatment. The faithful may submit to a doctor's ministrations as long as they believe that Allah ultimately decides about suffering and healing. But there are also quotations from the Prophet that invite taking action, for example that Allah has not sent any disease to humanity without the appropriate medical remedy (Bürgel 1977:54-9). Some representatives of Western medicine, such as former health officer N.P. van der Stok (1885:158-9) and the native doctor Goelam (1926:327), hoped with this last quotation to convince natives to submit to Western medical treatment.

THE SUPPLIERS

In the vast majority of cases, the patient and his/her family decided on the diagnosis and the treatment. This had consequences for the supply side of the medical market. Most of the time, patients cared for themselves. This was so normal that it hardly ever needed to be mentioned in the sources. The population 'doctored' itself in a variety of ways: diet (to increase the soul substance; Kruijt 1906:50), applying home remedies or purchased medicines, burning incense, making sacrifices, or massage (Jordaan 1985:214). People also organised communal rituals such as a sacrificial meal, *selamatan*, or a prayer session to ward off diseases.[7] The latter was practised when cholera threatened the Amuntai district (Kalimantan), and also in Jakarta (De Munnick 1912:55; Abeyasekere 1987:204). As a preventative measure, some Chinese in Jakarta invited dragon dancers to perform, as the cholera demon was apparently afraid of them.[8]

The suppliers formed a heterogeneous grouping, just like the consumers, each with its own definition of disease, health and healing, and thus its own manner of treating 'sufferers'. The indigenous healers, the *dukun*, made up the largest group, within which the *dukun bayi*, the midwives, had their own position. Other suppliers included the herbalists and herbal sellers, the Chinese and European doctors and ultimately the hospitals.

DUKUN

Unfortunately, there is not a single source from this period written by or quoting a *dukun* or in which natives give their idea of them.[9] We view the *dukun* only through the eyes of the Europeans. We can only guess at the number of *dukun* in 1850; in 1884 the Colonial Report stated that 11,000 worked on Java and Madura. Along with the *dukun* who dealt with health

7 In Jakarta in 1883 in the cholera season, described in *Sinar Terang*, Abeyasekere 1987:204.

8 *Pembrita Betawi* 12-7-1901 named by Abeyasekere 1987:204.

9 Bambang Subroto (1983:134-5) distinguishes the following traditional healers in modern Indonesia: along with *dukun, sinse* (use Chinese medicine), *tabib* (use Unani medicine), *paraji* (at births), acupuncturists, masseurs, *tukang jamu* (herbal seller). In Central Java *dukun* is equivalent to a TBA (traditional birth attendant), and the other indigenous healers are specified by *kyai* (Sarwoko, Ruslan Adji and Subodro 1983:231). On Bali, they are called *balian manak*.

Dukun specialised in massage and her client. (photo collection KIT 60009249)

and disease, some identified people guilty of theft, determined good days for a wedding, and other affairs. The medical *dukun* were often specialised: some treated only internal diseases, others were adept in massage, and others were experts in circumcision or splinting.[10]

Dukun were almost always old men and women.[11] Their scope of activity was in principle their own village, but good *dukun* would attract patients from the surrounding region. They were paid in money, goods or services. The civil servant E. Francis stated in his memoirs that in Lampung (Sumatra), a male *dukun* received 6-12 '*oewang*' (ten-cent coin) for circumcising a boy; for girls the female *dukun* received 3 *oewang* or a skein of yarn of the same value (Francis 1856:181). At first sight, it appears that women were being paid less than men even back then, but female circumcision was a much less complex procedure than the male version.[12] Modern scientists have ascertained that *dukun* on West Java, Madura and Sumba could not live from the payments for their services

[10] Classification of *dukun* by Geertz 1960; Koentjaraningrat 1979; Parsudi Suparlan 1978; Boedhihartono 1982; Jordaan 1985.

[11] Crawfurd 1823:323. Veth (1875:485) assumed incorrectly that a *dukun* was rarely a man and usually a woman. Also according to Bleeker (1844b:267 note 1), *dukun* were mostly old women.

[12] Circumcision of girls was a small cut in the outer labia majora and thus completely different from the clitoridectomy practised in some African countries.

Dukun from Kandangan, near to Lumajang (East Java). He is an elderly man sitting on a mat with a mortar among other tools. The photo was taken about 1925. (photo collection KITLV 36274)

and thus had to carry out other activities as well, such as farming.[13] The professionalism of the *dukun* was based on magic, namely pronouncing the correct formulas and conducting rituals, and empiricism, applying certain techniques and medicinal herbs.

[13] Boorsma 1913:2; Lubis, Borkent-Niehof and Pudji Astuti 1973; Jordaan 1985:171; Mitchell 1982:1.

KNOWLEDGE

The *dukun* gained their knowledge from an experienced *dukun* and from extensive practice. This information was primarily transferred orally, often by a family member. J. Kreemer (1882:590, note 16), missionary in Malang, wrote that a *dukun bayi* only passed on her magic formulas to her children or grandchildren when her end was near. The ethnographer L.Th. Mayer (1918:5) described the same tradition: *Dukun* learned their business or profession from their mothers or elderly family members and enriched their knowledge through personal experience. None of the sources reported that the *dukun* obtained information from the *usada* or *wisuda*, old Javanese texts about the art of healing and treating patients.[14] For Europeans, it was difficult to uncover the magical knowledge of the *dukun*: 'The secretive darkness, in which the *dukun* hides her work, makes it very difficult to obtain reports about it'.[15] To his regret, the orientalist H.C. Klinkert found that the Malay healers would not relinquish their writings, even for payment. They had their own language, just like the physicians and pharmacists in the Netherlands had 'dog Latin'. For Klinkert (1869:182-4) this was proof that the Malay medicine was not inferior. Mayer (1918:29) ultimately discovered that *dukun* are forbidden to reveal their formulas to the uninitiated. He suspected that the *dukun* do not understand what they say anyway. After a study lasting ten years, civil servant H.A. van Hien (1896:v) succeeded not only in providing a list of a large number of spirits, but also the incantations against the influence of evil spirits. According to him, the natives kept this knowledge secret because Europeans had too little respect for the *adat*.

METHOD

The *dukun*'s method aimed at restoring the patient's harmony with a combination of magical and empirical knowledge. First of all, they made a diagnosis. This was accomplished through various sorts of calculations or meditation or by analysing the symptoms (Koentjaraningrat 1979:42). Then they would attempt to drive away the evil spirit that had disturbed

[14] Koentjaraningrat 1979:37-43. Connor (1983:59) defines *usada* as Javanese-Balinese texts about medicine, magic and mysticism.

[15] Stratz 1897:42. The first physician in Semarang, J.A. van Dissel (1869:375), found that *dukun* were very reluctant to hand over their writings.

the balance. For example, for headache, earache or toothache, prayers had to be said on Saturday to Sambang while burning incense. While doing this, one had to hold a *pinang* nut in the hand[16] and repeat the same sentence into it three times.[17] It was thought that the nut, which was thrown away afterwards, would take the disease with it. For rheumatism and joint pain, they turned again to Sambang and burned incense, but now on Monday and speaking another text (Van Hien 1896:9-10). If the diagnosis ascribed the disease to a loss of soul substance, then the *dukun* would try to replenish it with some taken from other people, plants or animals. While chanting incantations, they sprayed the afflicted body parts or objects or smeared them with clean spit or chewed herbs.[18] Human excretions like spit and urine contain soul substance from the person in question (Kreemer Jr. 1915:15-6). Treatment with saliva was also done by laypeople.[19] Almost everywhere throughout the archipelago, people were familiar with spraying with *sirih*-spit, from chewing a well-known plum. The red colour of the saliva leads to the healing effect, as the spirits are afraid of it.[20] Kreemer Jr. (1915:13) pointed out that this practice was not so strange because the volatile oil of the *sirih* leaves contains a strongly antiseptic substance, chavicol, which was also recommended in European medicine. Therefore, the physician C.L. van der Burg (1887:420) was enthusiastic about applying *sirih* to cover wounds. Some spices were unsuitable for strengthening the weakened soul substance of the patient because of their form, flavour or name and were therefore forbidden (Kruijt 1918:83). Another treatment method involved the use of amulets and incantations. Amulets are often small objects like a piece of clothing, hair or nail clippings from the 'sufferer' over which the *dukun* has uttered magical incantations, and then the sufferer has to wear them on the body (Koentjaraningrat 1979:44). Operations were never undertaken by the *dukun* as surgery was said to be forbidden (Mayer 1918:5-6).

The *dukun* were also concerned with the welfare of the community, not just that of the individual. When smallpox broke out in a village, they went from house to house distributing pieces of lemon to protect against the evil spirit that had caused the smallpox (Kreemer Jr. 1915:12).

16 *Areca catechu* L., a palm, the nuts of which were used in the *sirih*-plum.

17 '*Si keteq, doenoengmoe ana ing lodojong!*' I have not been able to discover the meaning of this sentence.

18 Bleeker 1844a:474-5, note 1; Kruijt 1906:62; Kreemer Jr. 1915:13, 20, 22.

19 A caregiver treated the crown prince of Karangasem (Bali) in this way for motion sickness (Djelantik 2001:31).

20 Bleeker 1844a:474-5, note 1, 1844b:267; Kreemer Jr. 1915:13.

Another example is cleaning the village of evil influences (*bersih desa*).[21] The *dukun* would call on supernatural forces, and the villagers would clean their houses and remove weeds from the yards. This certainly had a preventive effect because it made the village less attractive to mosquitoes, ticks and snakes.

REMEDIES

Remedies occupied a key role in the *dukun*'s practice; they consisted of vegetable and animal components and minerals.[22] In the formulas the herbs were sometimes given other names than those used in daily life, probably to keep the knowledge secret and for fear that the use of common names would reduce their power (Pigeaud 1967:265). A.G. Vorderman (1886:3), the Civil Medical Service inspector on Java and Madura, ascertained that the Europeans were only familiar with the indigenous medicines from Java. When the sources mention local medicines, they thus actually refer just to Javanese ones.

Vorderman (1894:242-50) not only described the various medicines and their effect, he also examined in detail the explanations the *dukun* gave for the result. They were based on the doctrines of transmigration and of signatures. The transmigration doctrine posits that some medicines can transfer their properties to the body of the user. For example, many Javanese avoided eating the meat of white water buffalos for fear of losing the pigment in areas of their own body. A weak person would become stronger if he ate the sturdy, fibrous stems of a certain plant.[23] Dysentery sufferers would feel better if their faeces smelled normal; therefore, the *dukun* incorporated leaves in their formula that spreads the smell of normal faeces.[24] The consumption of a *cicak*, a small lizard,[25] was a remedy against leprosy because of its ability to regrow its lost tail.[26] The transmigration doctrine is also evident in a treatment method involving the *dukun* writing magical formulas from an *usada* or the Koran

[21] According to Parsudi Suparlan (1978:206) these rituals were abolished as they apparently conflicted with Islam; according to Heringa (2007:25) they still exist. Koentjaraningrat 1979:48 mentions *bersih dhusun* [cleaning of the village].

[22] Boorsma (1913:39-42) describes the indigenous remedies of animal origin.

[23] *Sidagori lelaki*, a *Sida* species from the *Malvaceae* famiy.

[24] *Daon kesimboekan*, also known as *daon kentoet*, *Paederie foetida* L., *Rubiaceae*.

[25] *Hemidactylus frenatus* Schl.

[26] Vorderman 1894:242-50 gives 30 examples of the transmigration doctrine in total.

on a cloth. The cloth was then washed, and the sufferer had to drink the rinse water so he would absorb the power of the formulas through the water (Kleiweg de Zwaan 1910:93; Koentjaraningrat 1979:43).

According to the doctrine of signatures, the healing power is based on a likeness of form (*similia similibus*). The external features of a natural product's form and colour reveal which diseases it can help cure. For example, the turmeric root is prescribed for jaundice, and the blood-red fungus for bleeding.[27] Vorderman pointed out that the effect, according to the transmigration doctrine, should actually be reversed: the fungus should cause bleeding and turmeric root induce jaundice. Kreemer Jr. (1915:36) referred to the application of red silk for nosebleeds by 'our ancestors' and of red semi-precious stones by Arabs, Europeans and natives for haemorrhaging as examples of the doctrine of signatures. They show that this theory was not specific to the Dutch East Indies, nor even to Asia. In Europe as well, the doctrines of transmigration and signatures were influential.[28] In Holland and Flanders, even at the beginning of the twentieth century people hoped to speed up a drawn-out labour with the rose of Jericho. This 'petrified' plant opens up when placed in water.[29]

The natives and the *dukun* also used a classification into warm and cold (Van Dissel 1869:375; Waitz 1829:2). The ratio must be in balance and could be restored if needed by treating 'warm' diseases with 'cold' medicines and vice versa. 'Warm' medicines do not have to be warm to the touch (Jordaan 1985:207). Health officer P. Bleeker (1844a:458), the first director of the *dokter djawa* school, described how the personal physician of Jan Pieterszoon Coen, Bontius, was convinced that warm rice would damage the central nervous system and could lead to blindness. The Javanese and Malays also believed this, and never ate rice warm. Bleeker considered warm rice to be harmless, but he still felt it was better to eat rice cold. He thought that it was better to eat food cold in general. J. Kreemer (1882:580) stated that many spices and drinks were forbidden for pregnant women because they were 'warm' and could lead to a miscarriage. Many scientists now believe that the classification into 'warm' and 'cold' arrived in the archipelago through Persian and Indian

27 Respectively, *Temu lawak* – rhizome (*Curcuma longa* L.) and *Jamur rimpes* (*Lycoperdon giganteum* Batsch and *L. kakawu* Lév).Vorderman 1894:251 lists 7 examples of the doctrine of signatures in total. Boorsma 1913:39 lists others.

28 Kleiweg de Zwaan (1910:87-97) gives several examples of this.

29 Kleiweg de Zwaan 1910:89; Aluin Museum, Ghent (Belgium).

influences.[30] The anthropologist Roy E. Jordaan (1985:206, 1988:152-5) predicates an Austronesian medical tradition existing before the Hindu era because in Indonesia and Malaysia other warm-cold distinctions were made regarding sexuality and pregnancy that are not found in the Galenic tradition.

EUROPEANS AND INDIGENOUS MEDICINAL HERBS

Europeans have a long tradition of lively interest in indigenous medicinal herbs, starting with Bontius. This trend was continued in the nineteenth century by the Semarang municipal physician, F.A.C. Waitz. In his book, *Practische waarnemingen over eenige Javaansche geneesmiddelen* (Practical observations on some Javanese medicines, 1829), he reported the effect of various local remedies along with the description. He had tried them out on European and native patients and once on himself (Schoute 1936:122). G. Wassink, the head of the Medical Service, and Vorderman published a series of articles about indigenous medicinal herbs.[31] The third volume of the standard work by Van der Burg, *De geneesheer in Nederlandsch-Indië* (The physician in the Dutch East Indies), entitled *Materia indica* (1885), was entirely devoted to indigenous herbs.[32] Prominent European physicians were clearly interested in them.

The study of local medicines had a practical significance as well as a scientific one for Europeans. According to Waitz, in his time – around 1830 – only two-thirds of the remedies included in the *Pharmacopoea Belgica*[33] were available in the Indies pharmacies, and a quarter of them had spoiled or were no longer useful (Waitz 1829:iii; Selberg 1841:443-4). Alternatives for the medicines from Europe were thus very welcome. The colonial government was thoroughly aware of this. The Medical Service regulations of 1827 charged the health officers with examining

30 Jordaan 1985:206 cites D.V. Hart (1969), L. Manderson (1981), Hiroko Horikoshi-Roe (1980).

31 Wassink, 'Onderzoekingen naar de geneeskrachten van inlandsche geneesmiddelen', *GTNI* 1854-57 (2:431-45; 3:225-35, 326-30, 520-4; 4:569-75, 749-51, 985-96; 5:813 etc.; Vorderman, 'Inlandsche geneesmiddelen', *Tijdschrift voor Inlandsche Geneeskundigen* 1894-1902 (2:17-22; 3:17-21; 4:1-6; 6:1-9; part 5 is missing; 8:49-55; 10:101-9.

32 Vorderman (1886) belittled this work that he felt was written behind a desk on the basis of books without any experience of the practice and thus was incomplete and full of inaccuracies. He even went so far as to accuse Van der Burg of plagiarism. Groeneveldt (1886:281-90) was very critical of the Chinese formulas; he felt it would have been better to have left them out.

33 At that time the Netherlands and Belgium were one country.

the indigenous therapies and the *dukun*'s methods. If they encountered anything useful, they were required to inform their superiors (*Ind. Stb.* 1827 no. 68 art. 52). Even in the 1880s the members of the Vereeniging tot Bevordering der Geneeskundige Wetenschappen in Nederlandsch-Indië – European physicians – exchanged information during meetings about where to obtain the best indigenous herbs in Jakarta: from Ms. Schuler on Gunung Sahari or from Ma doekoen Tonggo in kampong Kemayoran.[34]

EUROPEANS ABOUT THE DUKUN

The Europeans appreciated the *dukun*'s knowledge of medicinal herbs – partly for practical reasons. In contrast, the *dukun*'s grasp of anatomy and the functioning of the human body was considered pitiful (Waitz 1829:1; Broekmeyer 1856:39). The following quotation from the Colonial Report of 1849 clearly shows how widespread this condescending attitude was among Europeans:

> Even among those who claim to be healers (*dukun*) and as such gain a great reputation (mostly women), when administering medicines they trust blindly in their science, which states that when certain medicines are applied in certain conditions, the patients recover. […] It is self-evident that so limited an empirical method, although it may in some of the more common diseases (e.g., of the bowels) have coincidentally stumbled on the correct medicine, must have fatal consequences in the vast majority of cases; and even more so, a complete lack of knowledge has led to the production of a group of superstitious practices. (*KV* 1849:83.)

Many sources wrote in a denigrating tone about the magical practices of the *dukun*. J.A. van Dissel (1869:375), the municipal physician in Semarang, spoke about 'all sorts of superstitious nonsense', and P.J. Veth (1875:487), professor and authority in the field of the colonies (although he had never been there), referred to 'humbug'. Bleeker (1844a:474-5, note 1) also wrote of superstition, but put this into perspective: 'Incidentally, even in our enlightened Holland, superstition is not less in some places'. We hear the same qualification from Boorsma (1913:4):

34 *Notulen* [Notes] 29-05-1878, *GTNI* 24 (1885):101.

> The *dukun*'s explanation of causes of disease often sounds to us most eccentric until we remember that in Europe one can find entirely analogous concepts among less developed people, and that one does not have to go that far into the past to find similar concepts dominating our own medicinal practice.

The Europeans thus had no high opinion of the *dukun*, but there were exceptions. The physician Waitz (1829:40) had viewed the *dukun*'s method with his own eyes, while many other source writers apparently obtained their information secondhand. He recorded that a *dukun* first tried to diagnose one or two of the most important of the patient's symptoms, then as soon as he knew the name of the disease, he quickly applied all of the medicines from his collection (Waitz 1829:1-2). Although Waitz had the usual criticisms about the *dukun*'s expertise, he did take them seriously: he translated *dukun* as 'doctor' and described their method in careful detail without calling them witchdoctors. He did not consider the magical aspect of their practice in his book. The physician Greiner (1875:180-1), who reported about an indigenous surgeon in his memoirs, was also an exception. He talked about his 'Javanese colleague' and the 'Javanese doctor'. Greiner stated that the Javanese make great use of massage of nerves, tendons and vessels: 'It is unfortunate that we practise that treatment method so little. The results are highly surprising in some cases.' The Javanese were helpless only when it came to treating eye diseases; in that case they resorted to European medicines, namely a solution of *lapis infernalis*.[35] The *dukun* were very familiar with diarrhoea and dysentery, commonly occurring diseases in the East Indies. They treated them successfully with tannin-containing medicines, even for European patients (Greiner 1875:183). This passage sounded so positive that it only became clear with the words 'half-naked colleague' that Greiner was referring to a *dukun* and not a *dokter djawa,* a Javanese with Western medical training.

DUKUN BAYI

The *dukun bayi*, a *dukun* specialised in childbirth, was part of a separate medical market, midwifery specialists, who were almost exclusively

35 Greiner 1875:182. *Lapis infernalis* is an infernal stone, stylus of silver nitrate, used as a caustic agent, for example to cauterise a strongly granulating wound or burn away warts.

women.[36] It was a market that could count on great interest from the Europeans. The historical sources on this are more numerous and also more emotional in tone than those on other *dukun*: 'There is no other subject about which so much has been written, with so many case reports and horror stories as that of obstetrics'.[37] An illustrative example in this connection was given by health officer J.J. Lindgreen:

> The population is largely and sufficiently supplied with *dukun* for accompanying childbirth, which subjects I do not count higher than servants, as their knowledge does not extend any further than tying off the umbilical cord and forced removal; I would even go so far as to say pulling out the afterbirth; however, whenever even a slight complication occurs, then good advice is dear, doors, windows and cupboards must be opened, the house filled with incense, incantations and magical formulas initiated, but practical help is absent.[38]

Negative reports about the *dukun bayi* can be found from the hand of the physician John Crawfurd (1823:326-7, 332), resident of Yogyakarta during the British administration. He considered their treatment of women in labour improper; it definitely did not amount to much, given that nature did not make it difficult. There really was little to do, he felt, because all births were easy. He ascribed this to the warm climate. This prejudiced notion was shared by many sources,[39] sometimes on the basis of pelvic measurements (Kleiweg de Zwaan 1910:76-7). Almost all authors assumed that *dukun bayi* did not conduct any internal examinations.[40] Many sources reported their ability to turn a fetus lying in an undesirable position in the womb. Some authors, such as the health officer F. Epp (1845:319) and the missionary J. Kreemer (1882:590), did not believe this, while others, such as the gynaecologist C.H. Stratz (1897:46), expressed their admiration of it:

36 Verdoorn (1941:40) found on West Java one male *dukun* among a hundred female *bayi*; he acted like a woman.

37 Peverelli 1947:27. Kiewiet de Jonge (1911:286) said something similar: 'He [F. Epp in an 1845 article about midwifery among natives] told a few stories which were as horrible as the worst that has been brought to light in the past few years'.

38 AV 1849 Banyuwangi residence, Archief Schoute Banjoewangi.

39 Epp 1845:317; Muller 1846-47:275; Veth 1875:485.

40 Epp 1845:319; J. Kreemer 1882; Greiner 1875:183; Stratz 1897:31; Mayer 1894:27.

> The ability to bend and stretch the fingertips as they choose in all directions, the extraordinary flexibility of all parts of the hand and a finely developed sense of touch, supported by great strength and tenacity, allows them to make the most detailed diagnosis and exercise the greatest diversity of skill.

Stratz (1897:36) had seen for himself a couple of times that a *dukun* had changed a transverse presentation into a cephalic presentation just through external manipulations, once even after the waters had broken, although without the amniotic fluid the space in which to turn the fetus had shrunk. Epp and Kreemer's disbelief is not shared by modern-day gynaecologists because version of the fetus is still done in the womb. Epp considered the *dukun bayi* as someone with proper insights, but also superstitious foolishness, such as claiming that they could already establish the pregnancy between 8 and 14 days after conception. Telltale signs include blue rings around the eyes, widening of the hips and the milk ducts becoming visible.[41] Modern-day gynaecologists do not believe it is possible to verify a pregnancy at such an early stage.[42] The opinions of the missionary Kreemer (1882:591) about the *dukun bayi* are noticeably detailed and pronounced: 'During childbirth the greatest superstition is combined with the worst ignorance, and if the nature of the matter were not so serious and delicate, one would probably laugh about it'. Some obstetric knowledge was included in his training as a missionary, but whether that justifies the strong judgements he held is doubtful.

A *dukun bayi* was also tasked with contraception and promoting and reducing fertility. Health officer G.H.G. Harloff (1853:381) described in detail how a *dukun bayi* could induce an abortion with herbs. Kreemer Jr. (1915:83) inventoried the various abortion methods. Van der Burg (1882:69) reported about *dukun* who ensured that young girls would not have babies: 'The *dukun* apparently have the ability through external manipulation to bring about a change in position of the uterus, by bending backwards and forwards, which reduces the chance of becoming pregnant!' If the woman wanted to conceive, the uterus could later be returned at her request to its original position. Van der Burg described in

[41] Epp 1845:318. Van der Burg (1882:70) wrote exactly the same as if it were his own observation. This type of data seems often to have been gathered from other writers.

[42] Concerning the earliest date at which pregnancy can be determined, L.W. Peters, gynaecologist (interview May 2005), stated that the current method (urine test) can often not verify pregnancy at such an early stage as the *dukun* claimed. Determination 14 days after conception is logical because the menstrual period stops.

detail the pain that these patients felt during the procedure, which he had asked them about. Van der Burg appeared to believe, like most Dutch doctors of that time, that this treatment reduced fertility. The gynaecologist Stratz (1897:30, 43-6) also took the *dukun*'s techniques seriously, but when he researched the long-term effects, the results were disappointing. Currently, gynaecologists believe that the position of the uterus does not influence the chance of conceiving.[43] Eurasian women also consulted a *dukun* when they were childless, sometimes without the knowledge of their husbands, which led to the following lament from one man:

> A *dukun* was consulted, completely unknown to me, about this important affair, and innumerable conferences were held with that person, whose entire medical knowledge appeared to consist of the fact that she was older, uglier and dumber than any other Javanese woman. Artifices had to be tried, at least one night when I went to bed, I was overcome with a stifling scent of herbs. (Daum 1962:118)

With so many negative judgements about the *dukun bayi*, sometimes even from relatively inexperienced laypeople such as a missionary, the positive ones stand out all the more. The physician Greiner (1875:183), for example, felt that they were not all ignorant of obstetrics. They could conduct a satisfactory external examination, but if they encountered a complication, they resorted to amulets, and the woman in labour was practically tortured. The most striking one is the positive opinion of the gynaecologist Stratz (1897:27-30), on whom the *dukun bayi* had made a favourable impression. He pointed out the wealth of medicines they had at hand and their extensive practical experience and massage techniques: 'I readily admit that in this respect I have learned a lot from these brown female colleagues'. This compliment is all the more surprising because Stratz (1897:31) also reported about a birth he attended at which two *dukun* 'stepped with their feet on the bare belly of the woman in labour and pushed the baby out'. Few other gynaecologists share Stratz's positive attitude about massage.[44] The modern gynaecologist A. Haspels ascribes the extremely high number of uterus ruptures (one for every 36 births in Banyumas) to the external massage by *dukun bayi* (Stein 2007:61, note 6).

43 '*Retroversio uteri* is not a cause of infertility.' Lammes 1997:200.

44 Verdoorn (1941:183, 195, 198-9) reported several times about the negative consequences of a massage by a *dukun*.

HERBALISTS AND OTHER HERBAL SELLERS

There were also other people who offered their services around 1850 on the medical market of Java and Madura, sometimes literally. Usually, the *dukun* prescribed which herbs the sufferer should take. He obtained them from his own garden or from the market and prepared them (Koentjaraningrat 1979:43). The *tukang rĕmpa-rĕmpa*,[45] a type of herbalist, not only sold medicines but gave instructions for their use.[46] They often bought their herbs from Chinese wholesalers or from the *tukang akar-akar*. The latter searched for herbs in the forest and sold them, mostly to a *tukang rĕmpa-rĕmpa*, but sometimes they sold them themselves on the market (Vorderman 1886:26). Other people also tried to offload medicines there: they were called *tukang jual obat* (medicine seller) or *tukang jamu-jamu* (*jamu* were remedies to keep the body healthy, or occasionally medicines). The *tukang jamu-jamu* were women who sold medicines, either in raw or prepared form, and occasionally offered consults.[47] Many of these mixtures were meant to prevent disease.

The European apothecary W.G. Boorsma (1913:28) described one market stall as follows:

> Everything is piled up and mixed up, and one does not understand how the saleswoman finds her way. Despite this, she is generally well informed about her supplies and about the virtues they presumably embody, which is apparent from the well-intentioned advice which she continuously offers her customers together with her leaves and herbs.

There were also women who would go door to door with baskets of the most common medicines, ready for use.[48] Many sold not only medicines, but also themselves (Koentjaraningrat 1979:44). Particular specialists were the *tukang ampoh*, ones selling the edible red clay, *ampoh*, primarily to pregnant women who thought that the fetus liked it (Kleiweg de Zwaan 1910:126-7). The entire group of herbal sellers was customer-oriented:

45 *Rĕmpa-rĕmpa* were spices, herbs; the difference between a *tukang* and a *dukun* is that the former does not and the latter does have magical powers (Jordaan 1985:162-3, 194). In Central and East Java they were called *tukang cerakin* (Boorsma 1913:5).

46 According to Boorsma (1913:5) most of them were women, not necessarily Chinese.

47 Greiner 1875:186; Vorderman 1886:26. According to Vorderman (1886) and Van Hien (1924:16) they also called themselves *tukang rĕmpa-rĕmpa*.

48 According to Vorderman (1886:27), they would be primarily soldiers' wives.

Wholesaler in medicines in a Chinese district in Jakarta (photo collection KIT 10006705)

Women in the market. Photo taken by the well-known photographer Cephas of the market in Yogyakarta about 1910. On the right, *jamu bagolan* is being prepared, a mixture popular with women and children. The woman in the middle has a popular drink, *jamu parĕm*, in her bottles. (photo collection KIT 60027026)

sufferers could decide for themselves which medicines to buy and how much of them.

CHINESE HEALERS

The Chinese formed a rather closed group with their own leaders; their relative isolation resulted from being barred from certain professions. They were not allowed to rent land (Bosma and Raben 2008:107). They had their own medical facilities: healers (*sinse*),[49] pharmacies,[50] and hospitals, including ones in Jakarta and Semarang. There were at least 10 Chinese pharmacies in Jakarta and certainly one in Kedu.[51] They imported their medicines, especially herbs, from China, the Indian subcontinent and Arabia.[52] They also bought them from the *tukang akar-akar*. In 1860 there were 30 Chinese apothecaries in the town of Jakarta;[53] and in 1885, 67 Chinese healers in the residency of Jakarta; the large majority would have lived in the capital, Jakarta.[54] In 1865, the government appointed a Chinese vaccinator in Jakarta to inoculate the Chinese population.[55]

According to Bleeker (1844b:264), the Chinese healers in Jakarta did not have the anatomical knowledge available in China. The foundation and guideline for their treatment consisted of feeling the pulse. Bleeker did not have anything positive to say about this: 'Truly a pathology from the Middle Ages!' The health officer J.G.X. Broekmeyer (1856:39) was equally negative about their therapeutic knowledge. A description by Van der Burg (1882:82) reveals that they practised acupuncture. European physicians did approve of the Chinese remedies as they did of the native ones. Broekmeyer (1856:39) confirmed, 'At very least, it

49 Currently known as *sinshe* or *singse (xiangsheng)* (Rizal 2004:27).

50 According to Boorsma (1913:49) no competence criteria were imposed on the right to exercise medicine or to prepare remedies. Medicine and pharmacy were not separate in practice; students were trained in the apothecary.

51 Vorderman 1890:7; Archief Schoute Kedoe 1852. Boorsma (1913:45) marvelled at the large number of apothecaries in a Chinese neighbourhood. According to *Geneeskundigen (Inlandsche)* (1917:768) there were exclusively Chinese pharmacies in Jakarta, but this is not correct as there were also European pharmacies.

52 Boorsma (1913:47-8, 51) ascertained that the medicines from China looked clean and attractive; recently, they had encountered competition from prepared medicines from Japan.

53 Abeyasekere 1987:200, 209 note 52.

54 *KV* 1887:appendix A; Abeyasekere (1987:189-210) stated 89 on the basis of the same *KV*.

55 Archief Schoute Batavia 1865.

cannot be denied that the Chinese healers have knowledge about the effect of different medicines'. Bleeker (1844b:269, 283) saw similarities between the Chinese and the European *materia medica*; this also applied to the arrangement of pharmacies and the preparation of simple medicines. Therefore, he suspected that both *materia medica* originated from the Indian subcontinent. It was probably difficult to distinguish the native and Chinese medicinal herbs, as the Chinese had been living there for generations and were so familiar with the indigenous herbs that they considered them Chinese. The transmigration doctrine was part of their medicine – just as it was with the natives (Vorderman 1890:5-6).

CHINESE MEDICINES

Some *sinse* were known to have access to special medicines and were sometimes prepared to sell the formula for a lot of money. E.F. Meijer (1856:269-72), health officer in Riouw, told the story of a Chinese man who arrived from Singapore in 1855 and claimed to be able to extract teeth painlessly, even molars. Many inhabitants visited him, and several praised him. Meijer summoned the man and purchased his secret. It involved two powders: one a painkiller and one to loosen the teeth, making them easier to pull. Meijer used the first powder with great success; he felt the second one only worked moderately well.

In his report about the second semester of 1848, A. Schultz, health officer in Sambas (West Kalimantan), stated that a Chinese *ksing-ksang* had a remedy for leprosy and/or elephantiasis. The head of the Medical Service asked him to send the formula and the medicines directly to Jakarta, but the man asked an exorbitant sum of money for this. Ultimately, in 1855 the deputy resident succeeded in purchasing these medicines for *f* 1376.90 (current value € 10,310), after which the man in question disappeared without a trace. Another Chinese man, who also knew about this product, was summoned to Sambas to treat three Chinese patients with it in an accommodation near the clinic under Schultz's supervision. The formula – which consisted of several potions, salves and pills – was prepared by a Chinese apothecary. During the trial, one patient died, and of the two survivors only one appeared to be a bit better. After this course of treatment lasting four months, the Chinese *dukun* wanted to carry out further therapy that would also

last several months.[56] 'However, as the main course had had so little result and both Chinese (the healer and the supplier of the medicines) wanted to extend it, partly from embarrassment about the poor result, partly from greed, it was decided, to avoid further useless expense, the reasonable option was not to continue' (Wassink 1859c:363). Head of the Medical Service Wassink (1859c:363) commented that the effect of the medicines was dubious and that the same result could have been achieved with 'an energetic application of known substances from our own materia medica'. He went on to make the following remark: 'Through the generous and caring principles of the government, which does not spare any costs that serve the interests of humanity and science, we were able to test another of the secret therapies so often applied in the East Indies' (Wassink 1859c:364). The Chinese medical practitioners surpass the most infamous European quacks in cunning and impudence: '[T]hey understand everything, except the art of healing patients' (Wassink 1859c:365). Wassink (1859c:366) ended with the words: 'We refuse to comment'. Given what was stated before, this last remark seems to be far from the truth. Apparently, the Medical Service wanted to have use of the secret formula. Even the deputy resident was involved in its acquisition, and a large sum was paid for it. The trial was carefully arranged: everything was described in detail, including the 20 components of the formula. The Medical Service was clearly looking for new possibilities and thought they could learn from the Chinese. Neither expense nor effort was spared. The disappointment was naturally great when the formula appeared to be worthless.

EUROPEAN MEDICAL PERSONNEL

PHYSICIANS

In the East Indies there was just one medical service charged with caring for both soldiers and civilians. The health officers had to care for civilians in the neighbourhood of their garrisons in their spare time. If there was no health officer posted to a particular location, a private physician could be requested by the government to fill in for the Civil Medical Service

[56] The first Chinese doctor was called *ksing-ksang* and his colleague was *dukun*. Probably, this referred to *sinse* in both cases.

and also act as superintendent of the vaccinations. He was then named a civil physician and received for this a monthly stipend of 50-75 guilders.[57] Only the three large towns on Java (Jakarta, Semarang, Surabaya) had their own municipal physicians. It is evident that the Civil Medical Service was clearly subordinate to the Military Medical Service. In addition, there were some private physicians, often health officers who had left the military service.[58]

We have the most information about European physicians. It is correct to talk about European physicians in this case because in the nineteenth century many Europeans, especially Germans such as Waitz and Stratz, worked as health officers in the East Indies Army.[59] There were always vacancies: in 1848 there were 20 openings and in 1868 up to 40, a quarter of the complement.[60] Serving in the tropics was not very popular because of the low salary, mandatory 15-year posting, the poor chances for promotion, the low pension and the high mortality (De Knecht-van Eekelen 1988:95, 130). Half of the health officers who started their posting in the period 1820-1860 in the Dutch East Indies died within five years (Kerkhoff 1989:11). With so many vacancies it is striking that the government regularly released health officers for non-medical tasks, such as Jurriaan Münnich, who photographed antiquities in Central Java in 1840 (Van den Berg and Wachlin 2005:227), Franz Wilhelm Junghuhn, who could devote almost his entire career in the East Indies to the study of natural phenomena, and Eugène Dubois, who was able to investigate the missing link between man and ape.

The health officers were charged with the care of civilians in the region of their posting – as far as their military service permitted it. Most of them did not understand the local languages, not even Malay.[61] Indigenous languages were not included in their training, in contrast to that for the civil servants. This implies that the government expected that they would only treat European civilians. And. in practice, the population rarely asked for their help. The health officer in Banyumas treated

57 'De geneeskundige dienst in Nederlandsch Indië', *GTNI* 1(1853):80.

58 *Geneeskundige Dienst* 1917:761. Van der Burg 1882:342 left the military service after 8 years as health officer and established himself as a private physician in Jakarta.

59 Actually, it is incorrect to talk about Germans before 1870, the year of German unification; for convenience's sake the label is also used for the period before 1870.

60 Respectively: Letter from Rochussen to Baud 28-2-1846 no. (5) 44, Baud 1983b:92-3 and De Knecht-van Eekelen 1992:409.

61 Letter from the commander of the East Indian Army, F.D. Cochius, to the GG 29-11-1847, in: NA, Koloniën, 1814-49, 2.10.01, inv.nr 1849, Vb. 7-4-1848 N 2/205.

only 17 Javanese in the entire year of 1846 (*Algemeen Overzigt* 1848:206). The only time many natives did require Western medical help was when an epidemic struck. During a fever epidemic in Banten in 1861, the resident praised the two health officers for their generous and selfless efforts as they did not ask monetary payment from the population.[62] This last compliment was unjustified because caring for civilians was part of their job.

There were health officers who loathed treating civilians, especially natives, or perhaps they were just lazy. The civil servant A. Pruys van der Hoeven gave an example of this in his autobiography, *Veertig jaren Indische dienst* [Forty years of service in the East Indies, 1894]. In his district, the retiring physician had always helped his patients immediately. His successor used to regularly turn natives away with, 'Come back tomorrow at 10 o'clock', assuming that most of them would not return. The population complained about the behaviour of this new doctor. One particular day, Dengoean, a prominent native, asked Pruys van der Hoeven (1894:135-6),

> 'Could you please tell me whether the doctor that is here now had as good a training as the last one?'
> 'Why do you ask?'
> 'Because', answered Dengoean, 'the former doctor, when a patient visited him, always knew immediately what he needed to do, while this one always has to think about it until 10 o'clock the next day.'

The natives did not like surgery. If they allowed themselves to be operated on by a European physician, it sometimes led to an uproar. The resident of Yogyakarta recorded in his report for 1848:

> One operation deserves to be mentioned, as it caused quite a sensation regarding European medicine among the population. An indigenous priest had had a tumour on his throat for 22 years, which had gradually reached a weight of 26½ lb and by impeding breathing and swallowing was threatening the life of the sufferer and making him miserable. It was removed by health officer 2nd class F. Cornet, the local physician, with a successful result.[63]

62 AV 1861 of the Resident of Banten, Archief Schoute Bantam.
63 Archief Schoute Djokjakarta.

Most Europeans lived in the three large towns on Java, where the municipal physicians were located. The latter were required to assist for free European civil servants who earned a monthly salary under 150 guilders and poor people in all civilian government institutions such as town clinics and charities (*Ind. Stb.* 1825 no. 9). In addition, like the health officers, they were permitted to run a private practice as long as their official obligations did not suffer as a result (*KV* 1849:92).

The residents often complained in their reports that the health officers hardly ever saw the civilian population: 'Officially, the health officer in Bankulen is the vaccine superintendent, but he never leaves his garrison, and even then, one man can hardly supervise such a vast region' (Pruys van der Hoeven 1864:50). Various residents tried to convince a private physician to establish himself in their district; sometimes the inhabitants even collected a fund for this. But even when they succeeded in attracting someone, he often left after a short time because of the poor payment (Schoute 1936:127). This happened in the Jepara residency in 1852 where the Europeans were so healthy that the private physician was not earning enough in fees. When they did get sick, they didn't need him because they had in the meantime learned how to treat themselves with the indigenous medicines.

The group of European physicians formed a corps, a rather small group of doctors that met each other quite often due to the frequent transfers. A physician gained the right to paid leave in Europe only after 15 years (Selberg 1841:442). The common preparatory training, usually conducted at the Rijkskweekschool voor Militaire Geneeskundigen in Utrecht, contributed to the spirit of a corps. Former health officers often established themselves as private physicians and remained members of the corps. The heads of the Medical Service undertook all sorts of activities to strengthen the spirit and the quality of the corps, such as setting up a medical reading club in Jakarta in 1828 and the Natuuren Geneeskundig Archief voor Neêrland's Indië (Archive for Natural Science and Medicine in the Dutch East Indies) in 1844 (Schoute 1936:130, 143). A medical library was also created for the health officers.[64] On the initiative of W. Bosch, the weekly meetings in the military hospital in Jakarta (the so-called Conversatorium) gained a more formal character: in 1851 the Vereeniging tot Bevordering der Geneeskundige

64 In 1847 a heated dispute arose about the cost of purchasing new books between W. Bosch and his boss, lieutenant-general Cochius (Baud 1983c:186-7, note 6).

Wetenschappen in Nederlandsch-Indië was established.[65] It soon began to publish its own journal, the *Geneeskundig Tijdschrift voor Nederlandsch-Indië*. The first number appeared even earlier than that of the *Nederlandsch Tijdschrift voor Geneeskunde*, which was published in January 1857.[66]

APOTHECARIES

There were 3 municipal, about 25 military and 9 private apothecaries on Java.[67] Military apothecaries often sought a civilian position – just like military doctors – as it paid better. European apothecaries were bound by various government stipulations: they had to work according to the *Pharmacopoea Belgica* and keep at least a year's supply of all preparations listed in it.[68] In addition, they had to have access to a chemistry laboratory where all the formulas in the *Pharmacopoea Belgica* could be prepared in case of calamity (*KV* 1849:93). This stipulation applied only to European apothecaries and medicines, not to the preparation and supply of medicines by Natives and Foreign Orientals (*KV* 1849:83). This is strange because many European doctors used indigenous medicines.

MIDWIVES

In the three large towns on Java, there were in total five municipal midwives. In addition, there were private midwives, who were sometimes retired municipal midwives.[69] European midwives were obliged to assist poor pregnant women for free and to train interested European and native women to become midwives. For each woman who passed the exam, they received a bonus of 50 guilders. These stipulations from 1817 were still in force in 1899 (De Freytag 1899:45-6). Outside the large towns, the *dukun bayi* generally managed the deliveries of European women; only when there were complications was the help of a physician sometimes called in.

65 Schoute (1936:247-8) ascribed this to Bosch; Borgers (1941:127) disputed it.

66 The date of the first issue varies from 1851 to 1853; the journal had a subsidy from the government, first *f* 900, later raised to a maximum of *f* 2000 annually (Borgers 1941:128-9).

67 *Almanak en naamregister* 1850 listed 22 military apothecaries; *KV* 1849:11 listed 29; both sources named 3 municipal apothecaries; *KV* 1849:95 listed 9 private ones.

68 The *Pharmacopoea Neerlandica* introduced in the Netherlands in 1849 was first declared generally applicable to the East Indies in 1862 (Schoute 1936:277).

69 *Veranderingen geneeskundig personeel* 1853:161.

> The European midwives enjoy great respect in the European society in general, and in the Chinese to some extent; they have such a great influence on the ladies that their advice is almost always heeded above that of the physicians; they dare to carry out almost every assisted delivery method; administer medicines, etc.; they look down on the physicians with some disdain, who are called to assist in deliveries; want to instruct them in what they must do, and rely on their own extensive experience instead of scientific knowledge. (Van der Burg 1882:343.)

Apparently, Van der Burg was incensed that pregnant European women preferred to listen to midwives with experience rather than physicians with scientific knowledge. With repugnance, he ascertained that midwives applied instruments during deliveries, a method legally reserved for physicians (*Ind. Stb.* 1882 no. 97 art. 53), and he considered it unacceptable that the position of the midwives was so unassailable that this transgression went unpunished.

LAYPEOPLE

There were formal sanctions against unqualified people practising Western medicine,[70] but this was rendered inoperative in practice as the competency criteria did not apply to Natives nor to Europeans who assisted in the absence of a physician (*Ind. Stb.* 1853 no. 99). The latter situation occurred on a large scale. Basic medical services were part of the official tasks of *controleurs,* Dutch officials responsible for the administration of a number of districts and thus laypeople in the medical field. They had access to a medicine chest with instructions for its use (K.W. van Gorkom 1878:127). Nothing made a *controleur* more popular than supplying medicines; it was said to be even more important than knowledge of the local language or capacities.[71] [72]

70 GB 2-9-1847 no. 2, *Bijblad* 809; *Ind. Stb.* 1853 no. 68.

71 Letter from the resident of Kedoe 19-9-1868 no. 3103, Lauw 1987:143 note 11.

72 Only from 1885 were the numbers of *dukun* and *sinse* listed in *KV,* appendix A.

Caregiver	**number of**
Dukun	11,421 (1884)
Chinese healer, *sinse*	268 (1884)
European health officer from CMS	19
European physician (municipal, private, civil)	5+15+9
European apothecary (municipal, private)	3+9
European midwife (municipal, private)	4+?

Table 2.1. Number of medical caregivers from CMS on Java around 1850.[73]

HOSPITALS

Medical goods and services were provided not just by individuals, but also by institutions like apothecaries and hospitals. The Military Medical Service and the Civil Medical Service were actually one organisation, as were the infirmaries. Civilians were also treated in the military hospitals (*KV* 1849:93). They were classified into large hospitals, garrison hospitals and infirmaries (*KV* 1849:15). In 1867 there were three large military hospitals on Java (in Jakarta, Semarang, Surabaya), around 200 garrison hospitals and 43 infirmaries.[74] Throughout the East Indies the government had introduced four classes of patients in the hospitals, based on their rank in the military or civil administration or status in society (Weitzel 1860:33-4). In the large military hospital in Jakarta, Natives and Europeans were treated separately, as were non-commissioned officers and soldiers. Officers had their own room (Weitzel 1860:33). In addition, there were civilian medical institutions such as the municipal clinics *(stadsverband)* in the three large towns on Java, where convicts and poor natives were treated and nursed free of charge. The municipal clinic in Jakarta treated 3000-4000 patients each year (Abeyasekere 1987:199). Outside the three large towns, sick prisoners remained in prison, and sick convicts in the barracks (*KV* 1849:81). In 1856 the government supported ten native hospitals on Java and Madura and one on Ambon (Wassink

73 *KV* 1849:10-1, 95 *Almanak Nederlandsch-Indië* 1851:219-20.

74 Schoute 1937:159; De Knecht-van Eekelen (1992:410) gives the same figures as Schoute, with the understanding that De Knecht incorrectly assumed that the number of garrison hospitals 3rd class cited by Schoute was the total number of garrison hospitals. Ludeking (1871:53-6) gives very different figures: 4 large military hospitals, 33 garrison hospitals and 46 infirmaries.

A hospital in Malang around 1880 (photo collection KITLV 82774)

1859a:236), mostly in buildings made of bamboo (Schoute 1936:302). The nursing was in the hands of untrained orderlies (Sciortino 1996:29). In addition, there were institutions for the poor, beggars and lepers. The indigenous population had a great aversion to hospital admission (Schoute 1936:128), which was understandable given the quality of care and the other occupants. They were also convinced that people in a hospital were always operated on. At the beginning of the twentieth century, a servant who had been bitten by a poisonous snake would rather have died than go to the municipal clinic (Kloppenburg-Versteegh 1940:91). Europeans were also adverse to a stay in a hospital. Long before he was fully recovered, the health officer Bosch, the later Head of the Medical Service, left the military hospital in Jakarta in 1818 for fear of otherwise not getting out alive (Borgers 1941:14).

Sometimes a special hospital was established for prostitutes infected with syphilis, including ones in Kudus (Semarang), Madiun and Bogor in 1858 and in Cianjur (Priangan) in 1854.[75] The building in Cianjur was

75 Archief Schoute Preanger 1853; Archief Schoute Madioen 1863; Archief Schoute Buitenzorg 1858.

financed by the indigenous population, which can explain the relatively high number of admissions.[76] In the first quarter after the opening, 207 people were treated,[77] while in an entire year (1860) in the hospital in Kudus 212 women were admitted and in Bogor 120.[78] In his annual report, the resident of Priangan noted that in Cianjur several people had come voluntarily to the hospital 'to be healed of their Venus disease'. Infected men were also treated.[79] The percentage of women who were cured was high, if we examine the figures from Bogor: 85 of 120 in 1860, and a year later 273 of 303.[80]

In towns with many Chinese inhabitants, like Jakarta and Semarang, there were separate Chinese hospitals. In Jakarta the hospital aimed to treat 200 patients at a time: 100 'normal' sick Chinese and 100 Chinese and Native mentally ill patients, amounting to 5000-6000 patients a year (Abeyasekere 1987:199). There was a separate section for mentally ill patients, consisting of 41 small rooms around a square courtyard. The institution was under the supervision of the first municipal physician (i.e., not a Chinese healer), who was supported by 24 servants (Bauer and Smit 1868:33-4). Starting in 1827 it was granted a subsidy by the government.[81] In 1845 in Patjerongan, about 5 km from Semarang, a Chinese hospital was built, and just as in Jakarta about 40 mentally ill patients were cared for along with sick Chinese, separated into a men's and a women's ward. In each ward there were three rooms to isolate serious cases (Bauer and Smit 1868:35).

The archipelago with its many volcanoes contained numerous therapeutic springs; the *Encyclopaedie van Nederlandsch-Indië* devoted almost three pages to them (*Bronnen* 1917:412-5). The spring's water could be bathed in (balneotherapy) or drunk. In the immediate surroundings of some springs, simple accommodations had been built, for which only the rich paid a small fee (*Bronnen* 1917:412). The accommodation was generally built only after the therapeutic properties of the spring had been confirmed; European and native civil servants and Chinese mer-

76 GB 28-5-1854 no. 17, AV 1854, Archief Schoute Preanger.
77 AV 1854, Archief Schoute Preanger.
78 Archief Schoute Japara; Archief Schoute Buitenzorg.
79 Archief Schoute Preanger 1853.
80 Archief Schoute Buitenzorg.
81 Abeyasekere 1987:199. For a summary of the various money flows in the Chinese hospitals in the three major towns, *KV* 1849:144.

Journey by tandu, sedan chair, to the 'fresh air sanatorium' Tengger (East Java). This was how Johannes Hofhout was transported from Jakarta to Cipanas. (photo collection KITLV 30962)

chants contributed financially to its construction. Germans were already familiar with therapeutic springs from home. The presence of many Germans in the East Indies army could explain why the Medical Service constructed its own bathing facility at the hot springs in Pelantungan, 60 km from Semarang. This spa was later exploited by a private physician, C.C.W. Mandt, who received a subsidy from the government for years in exchange for admitting a number of civil servants.[82] A similar arrangement was made with the physician Ploem for Sindanglaya at Cipanas (Priangan) (Gramberg 1868:19). In these spas Europeans could unwind, just like in a few sanitoria in the mountains (Unarang in the residency of Semarang; Malang in the residency of Pasuruan; Kampung Makassar in the residency of Jakarta).[83] The journey to a sanitorium was arduous, long and risky for a patient because of tigers or robbers. It took Johannes Hofhout seven days to travel from Jakarta to Cipanas around 1760; there

[82] Mandt, a former health officer, received a stipend from 1852 until his death in 1862, Archief Schoute Semarang.

[83] Schoute 1936:162. According to Den Hertog (1991:60), the auxiliary clinics of the large military hospitals were located in the three major towns and established in 1848, 1853 and 1869, respectively.

were two days of rest on the way, and one patient died. But it was worthwhile because after 16 months he was healed.[84] If these health resorts did not offer any relief, then the person took sick leave and returned to Europe.

Some hospitals were not funded by the government, especially in Priangan. Instead, the expenses were paid by the *zakat*, a tax promoted by Islam (one of the five pillars), which was faithfully paid in Priangan. The institutions were meant first of all for nursing syphilitic prostitutes and, as far as the community permitted it, also sick prisoners and other natives. In the syphilis hospital in Cianjur (Priangan), the government paid for the medicines and the remuneration of the *dokter djawa*. The building, maintenance, running costs and food were paid by the population. Each year a sum of *f* 2000 was provided from the *zakat*, which was primarily collected from rice sales. So as not to burden the population too much, renovations of the building were spread over a period, such as replacing the *atap* by roof tiles and laying a wooden floor.[85] When syphilis wreaked devastation in the residency of Tegal around 1825, the regents had to ensure that the sufferers were not roaming the streets but were housed in the kampong. The regents decided then 'to reserve a small part of their and the incomes of native civil servants and retirees for use to create a separate ward'.[86] A form of communal financing occurred frequently: the costs for the beggars' infirmary in the residency of Yogyakarta were paid by the Europeans, the Chinese and the sultan.[87] We also saw communal financing by people from different population groups for the springs in Banten.[88]

Type of institution	**Number**
Large military hospitals	3 (Jakarta, Semarang, Surabaya)
Garrison hospitals	circa 200
Infirmaries	43
Municipal clinics	4 (Jakarta, Semarang, Surabaya, Cirebon)
Chinese hospitals	3 (Jakarta, Cirebon, Semarang)

84 F. de Haan 1911:appendix XXXIV.
85 AV 1854, Archief Schoute Preanger.
86 Citation from the letter by Vriesman, former resident of Tegal, to the GG 10-11-1859, Archief Schoute Tegal.
87 AV 1853, 1855, 1861, 1875, Archief Schoute Djokjakarta.
88 *Bronnen* 1917:412-4.

Type of institution	Number
Native hospitals	?
Springs and spas	circa 40 (at least 6)
Sanitoria	?

Table 2.2. Medical facilities on Java around 1865.[89]

RULES OF THE GAME

The 'markets with medical goods and services' described above were influenced by the *adat* and religion as socio-cultural factors and by several aspects of the colonial policy as socio-economic factors. Supply and demand in the medical market were determined by them to a certain extent. That is why they are called the rules of the game here.

ADAT AND RELIGION

Religions such as animism, Islam and Christianity have principles that act as restrictions governing the medical market. Islam on Java had incorporated many local customs and practices from animism, Hinduism and Buddhism. We see the same with the *adat*: some taboos are derived from earlier religions, others from Islam, and it is not always clear whether a particular one was derived from Islam or the *adat* or both. For example, operations and other surgical techniques were considered unlawful on religious grounds and because of the *adat* (Mayer 1918:5). In animism the soul was a condition of existence. The soul could leave the body through a wound or surgery, which would result immediately in death (Kreemer Jr. 1915:5). C. Snouck Hurgronje, the foremost Dutch scholar of Islam and principal adviser to the colonial government on Islamic and indigenous matters, pointed out that Islam condemned the indiscriminate implementation of changes in the body and forbade them if they resembled mutilation (Kleiweg de Zwaan 1910:231). Muslims believe that they must appear intact before the gates of heaven (Kloppenburg-Versteegh 1940:91). The sources never noted surgery being performed by *dukun*, not even simple operations like lanc-

[89] Den Hertog (1991:55) arrives at 79 hospitals in the East Indies in 1867.

ing of an abscess or extracting a tooth. Kleiweg de Zwaan (1910:203-4) observed personally that the inhabitants of Minangkabau refused both treatments.

According to the Koran, it was forbidden to introduce a foreign substance into the blood, and thus people fought against the cholera vaccination. Resistance was less to the smallpox vaccination because it was administered more on the surface (De Knecht-van Eekelen 1989b:62). Nevertheless, there were also orthodox Muslims who refused to be vaccinated against smallpox.[90] The Koran forbids the drinking of alcohol and thus of wine, a Western medicine in those days. In a circular the head of the Medical Service pointed this out to the health officers and emphasised strongly that wine should be given only to patients who had no objections.[91] The government did not want to offend the Muslims and thus incite unnecessary resistance to Western medicine.

The *adat* determined that the umbilical cord could only be cut after the placenta was delivered because the child and its afterbirth were apparently brothers. They were to be separated only after both of them had been born.[92] Because the natives attached great significance to this stipulation, they remained faithful to the *dukun bayi*, who respected this rule. In contrast, the Western-trained physicians and midwives did not want to endanger the life of the mother and child by doing this.

Abortion was forbidden by Christianity. Officially, the European physicians did not perform this procedure.[93] For the population the situation was different. According to Islam abortion in the first four months of pregnancy was not a sin because Allah only blew the vital life force into the fetus at that point.[94] *Dukun bayi* performed abortions for both native and Eurasian women. The health officer Harloff (1853:383) deplored the fact that Javanese women did not consider abortion a crime or sin and underwent the procedure, sometimes even with their husbands' con-

90 AV 1852 resident of Bagelen, Archief Schoute Bagelen.

91 Circular from the head of the Medical Service 17-12-1858 no. 2313/2046, Ludeking 1871:102-3.

92 Kleiweg de Zwaan 1910:65. Islam apparently has a stipulation here. *Penghulu* had declared that when the mother dies before the afterbirth is expelled, it was God's will that the child also die. The child remained tied to the dead mother and was buried with her, according to Van Kol 1903:746.

93 Van den Burg (1882: 99) wrote: 'It is a disagreeable business in practice that a physician is so often asked for the means to expel the fetus, a request that naturally is refused as often as it is asked'. His colleague J. Schülein (1905a:27) wrote in 1905 that in 25 years he had only conducted an abortion twice, but that no year passed without receiving numerous requests.

94 Kleiweg de Zwaan 1910:123; Bennett 2005:108; Niehof 2006:175.

sent. He hoped that this would gradually change through the influence of Western civilisation and by administering punishment.

The *adat* defined the relation between the classes in the indigenous society. This involved different forms of etiquette, rights and obligations. The *adat* prescribed that people of standing, like a *dukun,* should be honoured and showered with gifts. *Dukun* did not formally charge for their services, perhaps because they felt that it was God rather than their actions that healed the patient.[95] In practice they did receive compensation in the form of money, goods or services, but it is important to note that this compensation was 'voluntary'.

COLONIAL STIPULATIONS

The government did not involve itself much with the indigenous population nor with their health. As part of indirect administration, this was the task of the regents.[96] Nevertheless, certain aspects of the colonial policy did exert an influence on the medical market.

CLASSIFICATION IN RACES

In 1854 the Dutch colonial state divided the population of the archipelago legislatively into two categories: Natives and Europeans. Towards the end of the nineteenth century a third category was added, namely Foreign Orientals, consisting mainly of Chinese residents. Each ethnic group was governed by specific statutes and was expected, to a large extent, to manage its own affairs while also living in distinct neighbourhoods. It has been suggested that there was little interaction between Europeans, Natives and Chinese in the field of health provision and that those who were in need of medical assistance made use of healers who shared the same ethnic background.[97] There were many exceptions, however, and some healer hopping (Hesselink 2010:117).

95 H.H.B. Saanin DT Tan Pariaman 1983:159 (professor of psychiatry and director of the State Mental Hospital in Bandung) said that in his 35-year practice he had never asked for one cent. Perhaps he meant to say that he did not take the initiative. Probably he was paid, either by the patients, or in the form of a salary from the hospital.

96 'Reglement op de verpligtingen, titels en rangen der Regenten op het eiland Java', *Ind. Sth.* 1820 no. 22 art. 9.

97 'In the medical area, there was very little contact with the indigenous population' (De Knecht-van Eekelen 1989b:58).

The sources emphasised in a variety of ways the great resistance of the indigenous population to Western medicine and its practitioners (Schoute 1936:189, 201). Nevertheless, we do know of cases in which natives allowed themselves to be treated by a European after first consulting a *dukun*. 'Usually, several well-known remedies had already been tried, or a *dukun* had already attempted to help' (Van der Burg 1882:65). During delivery, several *dukun bayi* would generally have already assisted unsuccessfully before a European physician was consulted. Thus, the health officer Lindgreen was only called in after three *dukun* had given up; he delivered a healthy child. He was disappointed that this 'success' did not lead to his help being requested again – although he had offered it free of charge.[98] There was less resistance to medicines from Europe, such as quinine, castor oil, santonin biscuits (against intestinal disorders), iodoform, laudanum (opium tincture) and Bleeker's cholera drink, than to European doctors (*KV* 1852: 68-9).

The indigenous elite formed an exception. The *susuhunan* of Surakarta had a European personal physician, health officer Harloff. And the civil physician I. Groneman was the personal physician of the sultan of Yogyakarta for a long time.[99] Harloff (1853:384-5) was consulted for the slightest indisposition, and his instructions concerning diet and medicines were followed faithfully. It is striking that the women at court allowed themselves to be treated by him, even during deliveries (Schoute 1936:184). The resident of Surakarta wrote in his annual report for 1853 that Harloff enjoyed so much trust 'that he was almost the exclusive obstetrician for indigenous women. This example is unique.'[100] Also, health officer D. Doyer treated the daughters of the regent of Salatiga for typhus in 1863 (Schoute 1936:345). A special case in this connection was the *dukun* in the residency of Palembang, who visited health officer J.F. Buning because of a tumour. Through this successful treatment, Buning won his trust and came to learn a lot about his medical knowledge. Buning (1863:215-23) discovered that the diagnosis and treatment methods of the indigenous physician, once divested of the magic, often resembled his own.

Affluent Chinese and Arabs let themselves be treated by a European on occasion (Van der Burg 1882:82). The European missionary doctor

98 AV 1849 resident of Banjoewangi, Archief Schoute Banjoewangi.

99 Groneman was personal physician from 1869 to 1889, Buddingh' 1989:5, 7.

100 Archief Schoute Soerakarta 1853.

H. Vortisch van Vloten had a Chinese patient. A *sinse* had originally dissuaded him from consulting Vortisch because he could kill his patients, then take control of their soul and bring them back to life again. Vortisch suspected that this referred to anaesthesia with chloroform before surgery (Kreemer Jr. 1915:6, note 1). Vorderman (1886:46) had a popular practice among Arabs in Sumenep (Madura) around 1875. The richly variegated composition of the population is reflected in the patient list of the first municipal midwife in Jakarta. In 1848 she assisted 100 deliveries, of which 73 were European women, 1 Armenian, 2 Javanese, 5 Chinese and 16 women of unknown nationality (W. Bosch 1854b:328, 330).

The sources also contain examples of the opposite situation: Europeans who allowed themselves to be treated by non-European healers. Eurasians sometimes benefited from treatment by a *dukun*, especially for diseases of the intestines (Waitz 1829:iv; Van Hien 1924:14). Even an official document like the Colonial Report (*KV* 1849:83) mentioned this in 1849, although it was generally scathing about the *dukun*. Apparently, people were aware that it was not the proper thing to do: 'even in well-to-do families' a European physician was retained 'for decency's sake', while people used Javanese medicines 'behind his back' (Kiewiet de Jonge 1911:283). We already noted that European women would turn to a *dukun bayi* for an abortion or to reposition the uterus to reduce the chance of pregnancy (Van der Burg 1882:70). The deliveries of most European women in the interior were assisted by a *dukun bayi* (Van der Burg 1882:92). Sometimes the husband declared that he was not aware of this because otherwise he would 'certainly have prevented such charlatanism' (Stevens 1856:64). Europeans also sought treatment for syphilis or diphtheria from Chinese healers (Van der Burg 1887:391; Vorderman 1890:2-3). In the case histories of (Indo-)Europeans who turned to non-European healers, the diseases were often ones which could not be helped by European medicines or procedures that European doctors could not or would not do.

REGISTRATION

One of the first forms of government intervention in health care in the Netherlands involved controlling the practice of medicine. The situation in the colony followed suit (Van der Burg 1882:340). Given the principle of indirect administration, it was logical for the colonial administration

to control just the European medical market. Only those authorised to practise medicine, dentistry, midwifery or pharmacy in the Netherlands were authorised to do so in the Dutch East Indies (*Ind. Stb*. 1882 no. 97 art. 15). One could obtain this same authorisation in the East Indies by passing exams there (*Ind. Stb*. 1882 no. 97 art. 17-40). The practice of medicine by unauthorised persons was a punishable offence.[101] This stipulation did not apply to Europeans providing assistance in the absence of a physician (*Ind. Stb*. 1882 no. 99), which occurred on a large scale. In addition, the government arranged who could run a private practice as a physician, midwife or apothecary. For example, although J. Schaddelee-Hoogvelt was known to the government as the municipal midwife in Surabaya, she had to apply for permission in 1851 to practise there as a private midwife. In towns housing one or more apothecaries, physicians were not allowed to prepare or supply medicines (*Ind. Stb*. 1827 no. 68 art. 21). This seems to have been an anti-competition policy.

'The practice of Eastern healers is entirely free of any restricting stipulation', according to the *Staatsblad van Nederlandsch Indië*.[102] The government was not always consistent because serious errors made by *dukun* treating indigenous patients were sometimes punished by the government. In 1872 a *dukun* was sentenced to 15 years of hard labour because a 15-month-old baby who was apparently possessed by the devil died of burn wounds after the *dukun* tried to drive the devil out of him (Idema 1934:314). A *dukun* who removed too large a part of the penis during circumcision was sentenced to three months of hard labour (Soemodirdjo 1909:15-9).

HEALTH POLICY

Although the government in principle did not concern itself with the health of the indigenous population, there was some form of health policy in certain fields, like combatting infectious diseases. In that case there was the obvious risk that Europeans could also become infected, and the government was responsible for their health. All European physicians, even the private ones, were obliged to inform the local administration immediately when an infectious disease broke out (*KV* 1849:82). During an epidemic, everyone was involved because the indigenous

[101] GB 2-9-1847 no. 2, *Bijblad* 809; *Ind. Stb*. 1853 no. 68.
[102] Quotation in *KV* 1849:92; *Ind. Stb*. 1853 no. 99.

population often called on Western doctors and medicines at that time. In 1848 in the regency of Jepara, the natives came from far and wide to visit the European physicians during an epidemic rather than the *dukun*, as the resident noted pointedly. To make matters worse, one of the two European physicians took ill, but luckily the local apothecary could replace him. The vaccinators stopped giving vaccinations and supplied medicines instead.[103] During the cholera epidemic in 1849, the population took the prescribed mixture in blind faith, although they were usually adverse to Western medicines, stated the Colonial Report (*KV* 1851:54) with some pride.

Soon after the publication by Edward Jenner of his discovery of the smallpox vaccine in 1798, the government began to vaccinate the indigenous population. In 1850 under the leadership of the vaccine superintendent, A.E. Wazklewicz, a new system was introduced, in which the population had to travel less far, and fewer but better paid vaccinators came to them. The government tried to reduce the resistance by employing *penghulu* (Islamic religious leader) as assistants. In the residency of Jakarta around 1850, six female vaccinators were hired because the indigenous women and marriageable girls did not want to be vaccinated by men.[104] The female vaccinators had to be well trained because their work was difficult to monitor:

> Another check cannot be done, as long as the parties concerned [husbands or fathers] cannot be persuaded to bring the vaccinated women and daughters to the municipal physician once in a while, which should meet with less resistance because no physical contact is necessary, and nothing needs to be revealed except for a small spot on the arm.[105]

Religious objections occurred frequently. In the residency of Bagelen, several indigenous leaders, who 'adhered to a purer Mohammedan teaching', opposed vaccination. They were reprimanded and threatened with dismissal if they did not cooperate with the next round: 'This

[103] AV 1848, Archief Schoute Japara.

[104] Appointment resolution was taken on 20-10-1849; it actually concerned formalisation after the fact because Head of the Medical Service Bosch had already decided on the appointment without prior authorisation, Archief Schoute Batavia.

[105] Letter from the head of the Medical Service to the resident of Batavia 21-6-1849 no. 350, Archief Schoute Batavia.

warning had the most beneficial effect'.[106] Strictly speaking, coercion was forbidden, but the regents were obliged to recommend vaccination and counteract the population's resistance (*Ind. Stb.* 1820 no. 22 art. 11). Apparently, this stipulation was so important that evasion was a reason for dismissal. Civil Medical Service inspector G. Luchtmans concluded in 1874 that coercion had never legally existed, but was exerted in practice (Winkler and Noordhoek Hegt 1906:CXX). Not attending a vaccination or booster visit was punished by the regency's court with a fine – in Banten this was five guilders – or 'equivalent amount of work without pay' (Winkler and Noordhoek Hegt 1906:LX). The indigenous elite in Yogyakarta generally had their children vaccinated, but they did not want to exert any influence on the ordinary Javanese 'as it may conflict with their religious beliefs'.[107] Vaccination was evaded because of religious considerations and rumours of all sorts: vaccination made children weak and cowardly, or it was an attempt by the Dutch to label indigenous children with a magical mark so that they would later serve in the East Indies army (Boomgaard 2003:608; Van den Berge 1998:170). Elsewhere religious and political leaders considered vaccination a powerful instrument of the Dutch, and that is why they resisted. According to the resident of Banten, Mas Raie incited resistance against the smallpox vaccination in 1820 as a cover for his rebellion, which was soon put down (S. van Deventer 1866:30).

The many bachelors among all population groups in the East Indies made prostitution an accepted phenomenon, a necessary evil (Hesselink 1987:206). With the *Reglement tot wering van de schadelijke gevolgen welke uit de prostitutie voortvloeijen* (Regulation for the suppression of the damaging consequences derived from prostitution) (1852), the government hoped to counter the negative sequelae. The budget for combatting syphilis was also increased by 20,000 guilders (Borgers 1941:91). According to the regulation, prostitutes were obliged to register with the police and in principle undergo weekly examinations for syphilis by a physician –in practice this was usually once every two weeks. As the civil physician in Sidoarjo (Surabaya), Kohlbrugge (1903:2) inspected prostitutes five mornings a week, on average 200 per week. Infected women were admitted to the women's hospital next to the jail or in a special hospital for syphilitic women. Often the police made sure that they did not leave the

106 AV 1852, Archief Schoute Bagelen.
107 AV 1851, Archief Schoute Djokjakarta.

Vaccination in the kampong (photo collection KITLV 32745)

hospital. The soldiers were also examined weekly for signs of syphilis and other infectious diseases.[108] If syphilis was found among the troops, they were punished heavily and confined to a hospital. They had to identify the woman who had infected them.[109] Here the government clearly had no objection to exerting coercion. The high percentage of soldiers (20%) with venereal diseases explains this attitude.[110]

Sick prisoners, forced labourers and beggars had a right to treatment by a health officer or another physician charged with the Civil Medical Service. If no European physician was available, the local authorities would call in a *dukun* (*Ind. Stb.* 1847 no. 53), but this was considered a second-rate option. This showed that the government felt responsible for the health of the natives, even if only a few of them, and provided some funds for their health care. Forced labourers were probably cared for because they were cheap sources of labour. The daily treatment of the patients in the beggars' infirmary in the district of Kendal (Semarang) was assigned to two *dukun*, who each received 10 guilders per month for this job (Schoute 1936:77). The *dukun* working in the prison in Bogor

[108] Reglement op de Militaire Geneeskundige Dienst art. 57, Ludeking 1871:173.
[109] Algemeene Orders 1862 no. 37, Ludeking 1871:174.
[110] Wassink (1857:117) mentions a ratio of 1:4.9.

received only five guilders.[111] These payments were less than the 15 guilders for vaccinators. The government may have assumed that the *dukun* had income from normal work as well as this task. It is also possible that the government considered vaccination more important.

A final aspect of the colonial health policy was the stipulation that European civil servants with a monthly stipend of less than 150 guilders and their family members were entitled to free treatment by the physician charged with the Civil Medical Service.

Aside from the government, the sultan of Yogyakarta and the *susuhunan* of Surakarta implemented some form of health policy. For example, Pangeran Adipati Prang Wadhono paid three vaccinators with his own money.[112] The sultan of Yogyakarta paid a large part of the expenses for the beggars' infirmary in his residency for years.[113] In addition, in 1833 he had a main vaccinator and five standard vaccinators in service.[114] In 1851 there were 11, but after six months they still had not been paid. This 'appointment' reminds us of the compulsory labour (*heerendienst*) the lower class owed to the upper class. It was apparently not a coincidence that there was some health policy, particularly in the Principalities; the native administrators there did enjoy a certain amount of self-government.

CONCLUDING REMARKS

The medical market model assumes that sufferers have a choice, which is determined by the effectiveness of the caregiver and the treatment and the expense. In the Dutch East Indies around 1850, the sufferers hardly utilised the few options available. Partly this was due to the deficient infrastructure, but socio-cultural factors formed a more important barrier. The natives' concepts of health and disease meant that they did not trust Western medicine or doctors. The Europeans felt the same way about the reverse situation. This led to each population group in practice having its own market of medical goods and services. Sometimes, however,

111 Archief Schoute Buitenzorg, 1851.
112 Archief Schoute Soerakarta.
113 AV residency of Yogyakarta 1853, 1855, 1861, 1875, Archief Schoute Djokjakarta.
114 Archief Schoute Djokjakarta 1833, 1837.

sufferers availed themselves of the services of caregivers from another population group. This happened when a caregiver had a specific skill that the healer from one's own group lacked; for example, European physicians operated, and a *dukun* treated intestinal diseases and carried out abortions. Or during a fever epidemic, natives might resort to Western medicine and quinine in desperation. The Native and Chinese elites also allowed themselves to be treated by European doctors. Although these movements between members of different medical markets were exceptions to the general rule, they did produce a certain level of competition. European physicians examined successful treatments by *sinse* to apply them eventually to their own patients. It is understandable that *sinse* would consider this competition and want to keep their formulas secret. Surgery gained indigenous patients for European physicians because *dukun* did not operate, but the narcosis was used by competitors – in bad or good faith – to discredit surgery. The Europeans also competed with each other: the physicians wanted to uphold their monopoly on the use of instruments during deliveries and did not want midwives to get hold of them. In the field of indigenous herbs, there was a structural overlap: the herbs were often supplied by the Chinese and used by the indigenous, Chinese and European caregivers and sufferers.

The colonial policy hardly influenced the traffic on the medical markets. The legal classification of the population as established by the colonial administration was reflected in the health care sector: each population group had in principle its own medical market. The government wanted to regulate the supply side of the European medical market, but because neither the legal classification nor the regulations were watertight, they did not necessarily restrict free traffic between the different medical markets. The government left the indigenous medical market alone in principle, although regarding vaccination against smallpox, pressure, if not coercion, was exerted on the natives. Because it undermined the army's fighting capability, the government also forced prostitutes to be examined for infection with syphilis. In practice, many prostitutes were able to avoid this.

In the following chapters we shall see what position the graduates of the two medical schools occupied in the separate medical markets. They were Natives by birth, who had had a Western medical education with the intention of offering their services to their compatriots.

3

Colonial decision-making

The doctors' and midwives' schools for native boys and girls were founded around 1850 by the colonial government. To examine this subject properly, it is important to understand how the colonial administration was designed and what the decision-making process looked like. The treatment of advice from the head of the Medical Service, which led to the establishment of the doctors' school, illustrates this and is a relevant case in point.

COLONIAL RULE

It would be incorrect to presume that Indonesia was ruled and dominated as a colony by the Netherlands for 350 years. Until the start of the nineteenth century, Dutch authority was restricted just to Java and a few points of support on other islands. Then it gradually started expanding. Only at the beginning of the twentieth century did the entire archipelago from Sabang to Merauke come under Dutch administration. Historians differ about the extent of Western influence on the indigenous society. Some, including the colonialists and the post-war critics, believed that the influence was overwhelmingly dominant, while pre-war colonial critics such as Willem Walraven considered the Dutch presence 'not even a scratch on the rock' (Van Doorn 1994:13). In large parts of the archipelago, the colonial activity was indeed hardly noticeable. Concerning Java, the centre of Dutch power from the VOC era, the historians J.D. Legge (1964:69), H.W. van den Doel (1996:57) and M.C. Ricklefs felt the colonial period really only started after the surrender of Prince Diponegoro in 1830: 'For the first time, the Dutch were in a position to exploit and control the whole of the island, and there was

not to be any serious challenge to their dominance until the twentieth century' (Ricklefs 2001:155). Although the Dutch authority on Java was not threatened, there were frequent peasant uprisings in the nineteenth century. The Indonesian historian Sartono Kartodirdjo (1980:15) ascertained that they were generally reported only as an aside in the history of Java, but that they clearly 'prove' that the Javanese did not always quietly accept colonialism.

After the Java war (1825-1830) the colony's finances were depleted. In 1829 J. van den Bosch submitted a plan to revitalise Java to King William I. In 1830 the king appointed him the governor-general. In that function he introduced the Cultivation System on Java:

> The population there must be administered with fairness and justice, which means: not infringing on their everyday habits or their religious institutions, protecting them from all mistreatment and governing them on their own terms as far as possible, but for the rest, the interests of these lands must be subordinate to those of the mother country. (Van den Doel 1996:53.)

These words summarise the basis of the colonial policy of the next decades: the colony must be profitable, and the colonial administration must be indirect, in other words leaving the indigenous society as intact as possible.

ADMINISTRATION OF THE DUTCH EAST INDIES

The supreme rule over the colonies was assigned by the Constitution exclusively to the Crown – the king and his ministers – until 1848. In that year of political revolutions in Europe, the liberals gained majority control in the Dutch Parliament. This led to revision of the Constitution, which had far-reaching consequences for the administration of the Dutch East Indies. The king was no longer solely responsible for colonial affairs. In contrast to J.R. Thorbecke – the intellectual author of the new Constitution – the majority of the Lower Chamber believed 'that the role of the States-General as (co-)legislator for the colonies could not be the same as for the mother country' (Fasseur 1992:102-3). It was decided that the Crown should be qualified to regulate affairs by Royal

Decree, unless Crown and States-General should jointly decide that a law was 'needed' (Fasseur 1992:103). The Lower Chamber thus had less influence on the colonial policy than on the policy in the homeland. The Crown was obliged to make an elaborate annual report to the States-General about the administration of the colonies and their current status, called the *Koloniaal Verslag* (Colonial Report).

Preparing a budget was a task for the governor-general at the start of the nineteenth century. When deficits arose, the king took this task over in 1827 (*Begrooting Ned.-Indië* 1917:216). The Constitution of 1848 determined that the method of governance and responsibility for the colonial funds must be laid down in law. After two failed attempts, the liberal Minister of Colonies I.D. Fransen van de Putte succeeded in 1864 in having the *Indische Comptabliteitswet* (Indies Accountability Law) approved; the budget for the Dutch East Indies would now be set each year by law.[1] Nowadays this seems an obvious measure, but then it was not. The conservatives in the Lower Chamber wanted to have the budget set by Royal Decree, while the liberals felt that this task should be legislated and approved annually by the Lower Chamber (Janny de Jong 1989:54). The liberals ultimately won, giving Parliament authority over the colonial income and expenses, including the spending of the *Batig Slot* (the colonial budget surplus).

In formal terms the supreme administration over the Dutch East Indies lay in the Netherlands, where decisions were made and budgets were determined. The colonial Department in The Hague was often unaware of what was happening in the Indies because of the poor channels of communication. When around 1845 the new 'overland route' via the isthmus of Suez was opened, the travel time for letters was enormously shortened.[2] Nevertheless, a message from the Indies to The Hague still took about two months, and it would take at least another two months before the answer arrived in Jakarta. This meant that the administrators in the Indies could and had to act independently in practice. For example, Governor-General A.J. Duymaer van Twist in 1851 abolished the *pasar pacht* (market tax) without waiting for approval from

[1] *Begrooting Ned.-Indië* 1917:217; *Comptabelen* 1917:517.

[2] Fasseur 1992:16 ascertained that the journey time between the Netherlands and Java via the Cape of Good Hope in 1845 took as long as in the seventeenth century, namely four months. In the period the research for this book concentrates on, the overland route had become important and took about two months.

the Netherlands. The Raad van State (Council of State) disapproved of this action in hindsight, but the measure remained in force (Fasseur 1992:130). Certain recommendations from Java to the minister of Colonies, J. Loudon, only reached him six months after he had resigned in December 1861 (Fasseur 1992:233).

EUROPEAN CIVIL SERVICE

In 1854 – as a result of the Dutch Constitution of 1848 – the act concerning the Indies form of government was put in place, a sort of constitution for the overseas empire. This *Regeerings Reglement* (Constitutional Regulation) concentrated practically all power with the governor-general. According to the MP W.R. Baron van Hoëvell, who had been a clergyman in Jakarta from 1836 to 1848, the power of the governor-general in the Indies was much greater than that of the king in the Netherlands: '[H]e is the sun to which all people's gaze turns; when he laughs, everyone laughs, when he looks serious, then the entire crowd frowns, when he is sad, then all those who approach him cry'.[3] The governor-general was assisted by the Algemeene Secretarie [general-secretary] and the general Finance Department (subdivided into four directorates: Treasury and Domains, State Products and Civilian Warehouses, Cultivations, Civil Public Works). That was the entire government apparatus in the Indies. In the decision-making process the Raad van Indië (Council of the Indies) played a major role; it made recommendations about all important proposals, whether its advice had been requested or not. The governor-general had to consult the Council, except if the matter was unimportant, urgent or referred to the army or navy. Up to 1854 the governor-general could ignore the Council's recommendation if he had a reason to do so (*KV* 1849:8), but thereafter its power was augmented by the Constitutional Regulation: in some cases the Council's recommendation was binding.[4]

On Java and Madura in 1818, there were about 20 residencies with a resident in charge.[5] The Outer Islands were managed by a resident/

3 Van der Meulen 2002:226. Most likely, this is a deliberate reference to Louis XIV, the Sun King.

4 *Raad Ned.-Indië* 1919:525. The Council consisted of 5 members along with the GG, who was officially the chair but did not often attend meetings.

5 In 1840 there were 18 residencies and 2 independent assistant-residencies; in 1860 this was 19 and 4, respectively (Fasseur 1992:22). The Principalities (Surakarta and Yogyakarta) held a special administrative position.

assistant-resident or a governor. In addition, there were a few self-governing regions, both on Java (*Vorstenlanden*, the Principalities) and further afield. Despite the governor-general's overwhelming power, the poor communication channels allowed the residents to operate quite independently in the nineteenth century. The residencies were subdivided into smaller units with an assistant-resident in charge, who was supported by several *controleurs* and deputy-*controleurs*. In these less important regions as well, autonomy ruled. 'One could do much on one's own authority at that time', wrote *controleur* O.M. de Munnick in his autobiography. Upon arrival in a new posting in 1866, he found a large number of weapons that he ordered to be forged into bolts and nails for the maintenance of bridges without first asking for permission (De Munnick 1912:28).

NATIVE CIVIL SERVICE

The Netherlands governed its colony in the East according to the principle of indirect administration, in which the original indigenous authority structures were retained as far as possible. In the Constitutional Regulation of 1854, this principle was described as follows: 'As far as the circumstances allow, the native population is left under the direct leadership of its own officially appointed or acknowledged leaders' (Margadant 1897:17). The approximately 70 regents (*bupati*), usually nobility, sometimes even royalty, maintained direct contact with the indigenous population and acted as intermediaries between the natives and the European civil service. In this dualistic administration structure, the European officials controlled and supervised the native administrators (Janny de Jong 1989:16). The relation between the European and the native civil servant was expressed in terms of a family analogy: the regent was the younger brother of the (assistant-)resident.[6] The regent was supported by a *patih* (his deputy) and various district heads (*wedono* or *demang*), members of the indigenous elite, the *priyayi*. The village heads were not a formal part of this structure (Sutherland 1979:9).

Then there was the administration of the Foreign Orientals: once sufficient numbers of Chinese or Arabs had settled in one place, they were given their own leaders, called officers (major, captain or lieuten-

6 *Reglement op de verpligtingen, titels en rangen der Regenten op het eiland Java*, *Ind. Stb*. 1820 no. 22, art. 2.

ant). Their quarters were called the Chinese or Arabian camp (*Bestuur* 1917:286; Ko 1917:513-4).

After the introduction of the Cultivation System, the colonial administration came into closer contact with the Javanese villages and the village heads (Fasseur 2003:55). This led to an increase in the number of civil servants – European and native – on Java. In 1860 there were 175 European civil servants on Java to govern a population of about 12 million people together with around 70 regents, 300-400 district heads and thousands of village heads (Fasseur 1992:22).[7]

CULTIVATION SYSTEM

The Cultuurstelsel (Cultivation System) required the indigenous farmers to grow crops suitable for marketing in Europe. The products were shipped to the Netherlands and sold there to enrich the Dutch treasury. Civil servants determined the sort of export product (sugarcane, coffee, indigo, tobacco, tea) and the quantities for each village. A maximum of one-fifth of the agricultural ground had to be made available for this. The population had to do the work for a wage set by the government (*plantloon*) (Houben 1996:21). The number of days of forced labour was not to exceed 60 per year. Both the European and the native civil servants who were meant to implement the system received an allowance for this, the *cultuurprocenten*. This tended to encourage corruption because their allowance increased with a higher quota. The word 'system' is misleading because there was no organised whole with a certain unity and coherence; the Cultivation System incorporated large regional differences (Fasseur 1992:26). This makes it difficult to estimate its significance for the villagers. On the one hand, only a small proportion of the agricultural land was reserved for government crops. In 1845, when the system was at its height, it laid claim to just 6% of the cultivated land. But there was a wide range: from 12% in Pekalongan to 1% in Kedu (Fasseur 1983:364). On the other hand, the Cultivation System made huge demands on manpower: in 1850 almost half of the Javanese on average (excluding the Principalities and the residency of Jakarta) was

7 In 1860, the Department of Colonies, including the clerks of the office and the archives, numbered only 67 officials, Fasseur 1992:15.

involved in growing crops for the Cultivation System.[8] In this respect, too, the regional differences were great. In one district in the residency of Pekalongan, the inhabitants worked another 252 days in excess of their mandatory forced labour days (Elson 1994:88), thus practically the entire year, for the Cultivation System.

Many historians have researched the pressure that the Cultivation System imposed on the population. According to Van den Doel (1996:310), the Australian R.E. Elson has produced the best analysis so far. Elson estimated that under the Cultivation System the native men and women had to work harder than before, but the total amount of the crop payment given to the population was higher than the sum that they previously paid in land rent. On the macrolevel they were thus financially better off under the Cultivation System than with the land rent system. A money economy developed, and the welfare of the population as a whole flourished, but not everyone profited. The infrastructure was greatly improved. The number of inhabitants increased, but rice production remained the same per capita. Elson considered it a myth that the population became impoverished as a result of the Cultivation System. By and large the population benefited, although it involved hard work, and the welfare was not equally distributed (Elson 1994:323-4). Other historians such as Ricklefs (2001:158) still conclude that while there were certainly benefits for some, for the majority of Java's indigenous population this was probably a time of hardship.

The yields of the Cultivation System for the homeland were enormous. From 1831 to 1877 it realised 823 million guilders; in the period from 1851 to 1866 this was equivalent to 30% of the income for the Dutch state; it was called the *Batig Slot* (Fasseur 1992:242). It is striking that the profits in the period when the Cultivation System was on the wane (1850-1870) were twice those during its peak (1830-1850) (Fasseur 1983:366). The *Batig Slot* was used to redeem the public debt in the Netherlands, to reduce taxes and to construct canals, harbours and railroads.[9] Thanks to the profit from the Indies, the Netherlands could afford to put off implementing an income tax for a long time (Janny de Jong 1982:27). The compensation given to slave owners in the Dutch West Indies and the rising military expenses in the East Indies were also

8 Including the coffee cultivation, Fasseur 1992:32; Van den Doel (1996:96) gave the figure of 46% in 1850.

9 Hasselman 1860:72, note 3; Van den Doel 1996:92; Vanvugt 1996:126.

paid from it. As early as 1842 Minister of Colonies J.C. Baud considered Java the cork on which the Netherlands floated (Fasseur 1992:57).

Already in the 1840s problems arose, however. The explosive increase in the price of rice around 1838 was the first sign that the Cultivation System was less beneficial than presumed. In 1844 the rice harvest in Indramayu (Cirebon) failed (Elson 1994:101). Although that happened fairly regularly, this time the effects were significant: people fled the region, and famine reigned. Then when the harvest collapsed in other residencies, the administrators began to worry, especially once a mysterious epidemic broke out at the start of 1846 in Central Java, which was more persistent and severer than ever before (Elson 1994:100-2). In addition, reports about these troubles reached the homeland more quickly via the recently opened overland route. In 1847, Governor-General J.J. Rochussen asked W. Bosch, the head of the Medical Service, for advice about this epidemic in Central Java. This request for advice forms an illustrative case study for decision-making by the colonial administration.

A REQUEST FOR ADVICE

By the time of his appointment as head, Bosch had had a long career as a health officer in the Dutch East Indies (1818-1839). When he retired, he returned to the Netherlands, but for such a prime posting as head of the Medical Service, he was happy to come back to the Indies.[10] He arrived in Jakarta in mid-1845 to take up his post.

On 13 April 1847 he was asked by General-Secretary C. Visscher for advice about what steps, if any, the Medical Service could take to combat the raging epidemic in Central Java.[11] Most likely, it was typhus.[12] Bosch replied the next day. The exchange of official correspondence was amazingly fast in those days, certainly in comparison to now. In his letter Bosch ascribed the disease to the unfavourable season, poor accommodations, inadequate clothing and insufficient food, and stressed that the

[10] KB 22-12-1844 no. 71, Borgers 1941:76.

[11] Letter 13-4-1847 no. 893, cited in *Extract uit het Register der Besluiten van den Minister van Staat Gouverneur-Generaal van Nederlandsch Indië* 10-11-1847 no. 2, in: NA, Koloniën, 1814-1849, 2.10.01, inv. no. 1849; Vb 7-4-1848 N 2/205.

[12] According to W. Bosch (1853:453), it involved a 'catarrhal gastric fever, with a tendency to develop into typhus'. According to Boomgaard 1987:56, it was definitely typhus; According to Van den Doel (1996:99), it was probably typhus or cholera.

Official portrait of Bosch as head of the Medical Service (courtesy of Derek Bosch)

population needed help urgently. The government would have to provide assistance 'to the extent tolerated by the circumstances and the available means'.[13] He proposed the following measures:

1. every patient being nursed should receive 10 farthings per day to buy food, and suchlike;
2. the military must hand out all available old, partly worn and rejected bedcovers and blankets (the epidemic occurred in hilly regions);
3. every month 5 kg of quinine must be received from the Netherlands until the epidemic is over;
4. the patients within a radius of 6 to 9 km should be brought to one location in existing accommodations or sheds erected for that purpose, but on a voluntary basis;
5. every health officer should be assigned a European civil servant and some suitable native heads to supervise the regular administration of the medicines supplied.[14]

[13] Citation from his letter 14-4-1847 no. 841, cited in *Extract uit het Register der Besluiten van den Minister van Staat Gouverneur-Generaal van Nederlandsch Indië* 10-11-1847 no. 2, in: NA, Koloniën, 1814-49, 2.10.01, inv.nr. 1849, Vb. 7-4-1848 N 2/205.

[14] Citation from his letter 14-4-1847 no. 841, cited in *Extract uit het Register der Besluiten van den Minister van Staat Gouverneur-Generaal van Nederlandsch Indië* 10-11-1847 no. 2, in: NA, Koloniën, 1814-49, 2.10.01, inv.nr. 1849, Vb. 7-4-1848 N 2/205.

In a letter to Minister of Colonies Baud, Governor-General Rochussen responded very quickly (on 25 April 1847) to Bosch's proposals – although indirectly – definitely much sooner than the general-secretary's reply to Bosch. Rochussen wrote:

> When epidemic diseases rage in many residencies, the Medical Service strives to have European physicians treat the suffering Javanese population and to administer European medicines. What a period of development and prosperity this could be for the Medical Service! It leads to almost daily proposals, including very foolish and extravagant ones: from the construction of clinics in every district, to the distribution of woollen blankets, quinine, rice for the sick, rice for the healthy to prevent them getting sick, people want to force the Javanese to dress better, not to live in bamboo huts under banana trees, etc., etc.[15]

Rochussen's cynical response did not bode well for Bosch's proposals. One month later, on 20 May 1847, Visscher addressed himself to Bosch. He agreed to distribute old blankets and covers, but he doubted whether the quinine from the Netherlands would arrive before the epidemic was over.[16] We know that a letter took up to two months to travel between Jakarta and The Hague, so the general-secretary apparently expected the epidemic to be over within four months. Perhaps this was a deliberate underestimation because it was in the government's interest to paint the situation on Java in as positive a light as possible. A clear indication that the severity of the epidemic was underestimated can be found in the previously mentioned letter from Rochussen to Baud, in which he writes cynically:

> I want to believe that severe epidemics do exist with the eventual loss of many lives, but I do not believe that they can be as bad as people say they are. The district and village heads have a reason for exaggerating the number of sick and dead patients, because then less forced labour would be required of them; the residents, because it provides an excuse later if

[15] Letter from Rochussen to Baud 25-4-1847, Baud 1983b:238.

[16] Letters of 20-5-1847 no. 1182 and no. 1183 cited in: *Extract uit het Register der Besluiten van den Minister van Staat Gouverneur-Generaal van Nederlandsch Indië* 10-11-1847 no. 2, in: NA, Koloniën, 1814-49, 2.10.01, inv.nr. 1849, Vb. 7-4-1848 N 2/205. Quinine plantations were first established around 1850 on Java, Boomgaard 1987b:58.

> roads or bridges or waterworks are not in good condition, or if the coffee harvest is disappointing (because of a lack of hands); the health officers, because it makes them irreplaceable and could perhaps benefit them. [17]

Bosch replied sharply. His proposals would only produce results if the entire package of measures was implemented without restriction. The epidemic could continue for a long time, and in the meantime it had become evident that the disease was spreading quickly because of the population's poor living conditions, especially the dearth of rice. The best remedy would be an abundant rice harvest.[18] With his remark about a dearth of rice, he was indirectly criticising the Cultivation System, which took agricultural land away from rice cultivation. Bosch was thus not only exceeding his medical prerogative, he was also criticising the core of the contemporary colonial policy, the Cultivation System. For a senior civil servant this was a risky thing to do.

Given his strong criticism of the Cultivation System, the general-secretary forwarded Bosch's letter to Director of Cultivations L.W.H. de Munnick.[19] As expected, he retaliated harshly against a colleague who dared to criticise his area of policy. He stated that the rice harvest in the region was good and that, as Bosch did not name his sources, his words had less value than the messages from 22 residents who communicated daily with the heads of the population. In addition, Bosch had been given the wrong information: the population in the mountains where the epidemic raged ate corn and root vegetables; rice was served only at feasts. In reply to Bosch's remark that the people had already been forced to sell their valuables to buy food and were therefore wearing rags, the director stated that the hill people never wore anything else. There was certainly no misery: the population earned money with coffee, there was enough unused land, and no extra forced labour was required. The director included Bosch in the group of opponents of the Cultivation System who – perhaps from ignorance – tried to ascribe all calamities

17 Letter from Rochussen 25-4-1847 to Baud, Baud 1983b:238.

18 Letter 25-5-1847 no. 1168 cited in *Extract uit het Register der Besluiten van den Minister van Staat Gouverneur-Generaal van Nederlandsch Indië* 10-11-1847 no. 2, in: NA, Koloniën, 1814-49, 2.10.01, inv.nr. 1849, Vb. 7-4-1848 N 2/205.

19 Letter from Bosch 25-5-1847 was forwarded 5 days later by the General-Secretary to the Director of Cultivations, *Extract uit het Register der Besluiten van den Minister van Staat Gouverneur-Generaal van Nederlandsch Indië* 10-11-1847 no. 2, in: NA, Koloniën, 1814-49, 2.10.01, inv.nr. 1849, Vb. 7-4-1848 N 2/205. Fasseur 2003:157, reported incorrectly that S.D. Schiff was then director of cultivations; he was, however, the successor of De Munnick.

to it. The current epidemic was a normal phenomenon that occurred during the transition between two monsoons; it was unjust to search for an unusual cause.[20]

In response to the request to reveal his sources, Bosch sent the reports from different health officers along with his reply.[21] He wrote that he himself had in the meantime visited the towns of Cirebon and Indramayu and ascertained that the misery the population suffered was the main cause of the epidemic.[22] Bosch thus did not retreat from his earlier pronouncements. In contrast, he formulated his hypothesis that the epidemic could be ascribed to undernourishment even more clearly than in his earlier letters.

NEGATIVE RESPONSES

Earlier, on 20 May 1847, the general-secretary had asked several residents from Central Java whether it would be useful or necessary for the Medical Service's efforts to be offered directly to the population. Were the natives open to such an approach, and did it make sense to collect the sick patients in central clinics, as Bosch proposed?[23] The residents consulted the regents in their provinces, and both the residents and most of the regents affirmed that the Medical Service should only deal directly with the population when that was desirable, which was rarely the case, and that the population abhorred central clinics.[24] The remark that 'most regents' supported the recommendation is interesting; there were clearly some with differing opinions.

The Council of the Indies was also consulted, and it was decided to temporarily continue sending health officers to the worst affected areas.

[20] Letter 3-6-1847 no. 1751/26 cited in: *Extract uit het Register der Besluiten van den Minister van Staat Gouverneur-Generaal van Nederlandsch Indië* 10-11-1847 no. 2, in: NA, Koloniën, 1814-49, 2.10.01, inv.nr. 1849, Vb. 7-4-1848 N 2/205.

[21] Bosch based his ideas on the reports from A. Gobée (Salatiga); C.C.W. Mandt (Pelantungan); P.A. Fromm (Surabaya); O.J.G. Mohnike (Temanggung); P.J. Kocken (Magelang); P. Swart (Wonosobo); M. Bensinger (Nanggulan); C.C. Schutte (Banyumans), Schoute 1937:143 note 1.

[22] Letter 25-6-1847 no. 1326, cited in *Extract uit het Register der Besluiten van den Minister van Staat Gouverneur-Generaal van Nederlandsch Indië* 10-11-1847 no. 2, in: NA, Koloniën, 1814-49, 2.10.01, inv.nr. 1849, Vb. 7-4-1848 N 2/205.

[23] According to Schoute (1936:249), the Council of the Indies announced in resolution 2-11-1847 that it would be starting an investigation of the opinions of the residents involved. This appears to be incorrect because the residents' reports had been received long before then.

[24] *Extract uit het Register der Besluiten van den Minister van Staat Gouverneur-Generaal van Nederlandsch Indië* 10-11-1847 no. 2, in: NA, Koloniën, 1814-49, 2.10.01, inv.nr. 1849, Vb. 7-4-1848 N 2/205.

The officers were given sufficient stocks of medicines, especially quinine; the local authorities were urged to give them every assistance required. Surplus or rejected blankets from the Indies army were made available to the population. Bosch's other proposals were rejected.[25]

There were thus two negative responses to Bosch's proposals: one from the five residents and one from the Council of the Indies. Nevertheless, it took almost half a year – unusually long in those days – before the general-secretary sent a definitive reply to Bosch. The reason for this 'delay' was that the governor-general wanted to conduct some investigations personally. He went on an inspection tour in June 1847.[26] On the one hand, this visit showed how seriously the governor-general took the issue and especially the criticism of the Cultivation System.

> I shall tour through the provinces where in the past few months the epidemics have caused such severe damage. Happily, they are considered practically over. I consider it very important to see the situation with my own eyes, but people will try to show me only the good aspects. (Baud 1983b:256.)

A cynical but realistic assessment in practice. On the other hand, the description of the situation in the regions afflicted by the epidemics took up only a few lines in Rochussen's letters to Baud.[27] He wrote that he wanted to learn about the origin and the nature of the epidemic because the Medical Service ascribed the cause to the high price of rice, 'a position that, if it were true, would well suit the so-called liberals and philanthropists, of which many are to be found in this corps, and would immediately lead to the conclusion they are looking for: *the government's system is to blame for everything!!*' (Baud 1983b:274-5). This passage shows that the liberal view was widely represented in the Health Service and that conservatives like Rochussen were apprehensive about this situation.

During his inspection tour, Rochussen interviewed European and native civil servants and became convinced that the epidemic was neither

[25] *Extract uit het Register der Besluiten van den Minister van Staat Gouverneur-Generaal van Nederlandsch Indië* 10-11-1847 no. 2, in: NA, Koloniën, 1814-49, 2.10.01, inv.nr. 1849, Vb. 7-4-1848 N 2/205.

[26] In his letter to Baud of 26-6-1847 no. (23) 62, Rochussen reported that he intended to travel to Semarang by steamboat on 29 June; the journey was expected to take two months, Baud 1983b:256 .

[27] This concerns three letters [22-7-1847 no. (24) 63; 25-8-1847 no. (25) 64; 29-9-1847 no. (26) 65] amounting to 22 pages, of which not even 2 pages, thus not even 10%, were devoted to the epidemic; Baud 1983b:263-92.

caused nor spread by misery and poverty. Quite the opposite, the districts were actually well off because of the coffee crop. The population considered the cause of the epidemic to be the war between the mountain spirits of Merbabu and Slamet, two volcanoes on Central Java; the emanation of their rage poisoned the air: 'This seems to be a fairy tale, but it may not be that far from the truth: I feel that the cause can be ascribed to volcanic effects on the soil' (Baud 1983b:275). Rochussen's opinion matched the commonly held view among European physicians that vapours (miasmas) caused diseases. The damage caused was exceptional in Rochussen's eyes: in some villages only two or three people were left. In the district of Batoor alone, 42 village heads had died, which Rochussen took as further proof that the epidemic was not due to poverty because village heads were not the poorest inhabitants. Rochussen anticipated a financial loss for the kingdom from this disaster, 'as the planting has hardly been done, and much of the crop was not harvested'.[28] Shortly after his return to Bogor, he stated that the epidemic had decreased in magnitude.[29] This would prove to be a case of wishful thinking.

At the start of October Bosch reported to his superiors as usual about the past year. In his account for 1846, he gave four explanations for the outbreak of the epidemic: the first two were the weather conditions and the volcanic vapours.[30] The text reveals that Bosch disagreed with the governor-general. While it was true that the Merapi had worked harder than usual in 1846, they had only done so in the second half of the year while the epidemic had started in February. In addition, if volcanic vapours could cause epidemics, then the Dieng plateau, which is continuously shrouded in volcanic vapours, would have been depopulated long ago: 'I cannot accept that the volcanic influence that some still defend is responsible for this epidemic' (W. Bosch 1853:460-1). His third explanation was a lack of food:

> It is more than likely that scarcity and expense of the basic and most essential necessities of life, mainly rice and other foodstuffs, formed one of the most supportive causes of the spread of the disease, an opinion that seems to be confirmed by the circumstances that Europeans, Chinese and

[28] Letter from Rochussen to Baud 25-8-1847 no. (25) 64, Baud 1983b:275.

[29] Letter from Rochussen to Baud 29-9-1847 no. (26) 65, Baud 1983b:287.

[30] Bosch dated the report as 9-10-1847; it was only published in 1853 in *GTNI* (W. Bosch 1853:439-68).

> their servants were spared the epidemic, a favourable result that cannot be explained if we take weather or geological influences to be the cause of the disease. (W. Bosch 1853:462.)

Thus, Bosch decimated the causes listed by the governor-general. Finally, he described the negative mental state that could develop from malnutrition:

> It is generally accepted that a malicious disease finds fertile ground for its spread depending on how much a population is afflicted by it and other acute plagues, hunger and lack. […] Who would be surprised if in a place where the primary necessities of life are lacking, where people see many of their closest kin dying off, without having or knowing of the means to stop this, that population, resigned and patient as the people of Java are, sinks to complete despondency? (W. Bosch 1853:462-3.)

TRAINING OF NATIVE DOCTORS

At the end of his report, Bosch proposed the plan to train natives to become doctors. They could be employed as vaccinators and also could offer medical help in treating wounds, broken limbs, skin diseases and syphilis: 'And there is no doubt that, if we had had such personnel in the current epidemic, under the leadership and supervision of the health officers, it would have been greatly beneficial!'[31]

One month later, in November, the general-secretary sent a letter to Bosch, in which he finally formally responded to his letter of May 1847, First of all he entered into Bosch' opinion on the causes of the epidemic and especially the hardening in his point of view. The government was not at all convinced by the health officers' reports, which Bosch had used to support his views. During his inspection tour, the governor-general had seen for himself that Bosch was wrong about claiming deprivation and misery as the causes of the epidemic. The government was offended by his criticism of the Cultivation System; in his high posting, he should have been doubly careful about making such suggestive statements. In addition, he had been warned just a few months before in a personal conversation with the governor-general about the influence of certain

[31] W. Bosch 1853:468; Bosch presented this proposal in a letter to the GG 9-10-1847 no. 124, W. Bosch 1854a:198.

health officers.[32] His proposals were completely impractical. Regarding Bosch's last proposal – the training of indigenous doctors – the general-secretary did not address it.

But Rochussen did. In an official letter of 26 December 1847 to Minister of Colonies Baud, he first listed the measures he had taken in the epidemics of 1846 in the mountainous districts of Central Java.[33] He had sent health officers to the afflicted areas and handed out medicines, especially quinine. Everything possible had been done to help the population. Furthermore, he reported that while the Head of the Medical Service Bosch ascribed the epidemic to the population's general misery, he had noted that this was incorrect during his own inspection tour. He had therefore reprimanded him. However, Rochussen did sympathise with Bosch's proposals, although he felt they were financially unfeasible. Due to limited means, Western medical help could only be offered during a severe epidemic and if the population requested it, which occurred rarely. He was not in favour of coercion. But that did not release the government from taking measures against the epidemics, Rochussen continued. He was convinced that in the national interest something should and must be done to improve the exercise of health care by the *dukun*. Especially because Baud was familiar with the situation in the Indies,[34] Rochussen did not feel it was necessary to mention in detail the incompetence of the *dukun*, 'this destructive evil'. It would have to remain wishful thinking to have the afflicted population of the entire archipelago treated by physicians 'equipped with the knowledge which we currently consider the epitome of perfection in this science'. In brief, Rochussen expected a benefit from Bosch's last proposal, the training of natives to be doctors.[35] He showed himself to be magnanimous here because two months earlier he had confessed to Baud about Bosch: 'On my tour I became even more convinced of the man's vehemence and partiality, and also that he had reported many gross inaccuracies. Almost all residents were indignant about his behaviour during his inspection tour and about

32 Probably these officers were liberals, just like Bosch; we know this for certain about the health officer in Temanggung (Kedu), O.G.J. Mohnike, Beukers 2002:148.

33 Letter to GG dated 26-12-1847 no. 722/2, in: NA, Koloniën, 1814-49, 2.10.01, inv.nr. 1849, Vb. 7-4-1848 N 2/205.

34 Baud had already had a long career in the Indies between 1811 and 1836; for example, he was deputy GG from 1834 to 1836.

35 Letter to GG dated 26-12-1847 no. 722/2, in: NA, Koloniën, 1814-49, 2.10.01, inv.nr. 1849, Vb. 7-4-1848 N 2/205.

J.J. Rochussen, Governor-General 1845-1851 (reproduction of a painting by Nicolaas Pieneman, photo collection KITLV 4643)

the subsequent report he wrote.'[36] Apparently, Rochussen did respect Bosch who, though tactless, was always forthright.

The elaboration of this proposal would lead to the establishment of

[36] Semi-official letter from Rochussen to Baud 29-9-1847 no. (26)65, Baud 1983b:289.

the *dokter djawa* school. Even with that result, the issue was not yet finished for either Rochussen or Bosch.

THE AFTERMATH

Bosch was friends with W.R. Baron van Hoëvell when he was a clergyman in Jakarta. Because of his critical stance towards the government, Van Hoëvell was forced to return to the Netherlands in 1848. From there, he continued to correspond with Bosch, who communicated confidential government information to him (Borgers 1941:131), which Van Hoëvell used in turn in his incessant critical speeches as an MP. That Bosch supplied the colonial opposition in Parliament with ammunition probably played an important role in the absence of full rehabilitation for him after the conflict described above (Janse 2007:179). He did receive some redress, although it came piecewise. At the start of 1849 his competence, good intentions, industriousness and dedication were acknowledged in an official letter from the government. Where possible, the government would help to achieve his objectives, but Governor-General Rochussen remained convinced that the epidemic could not be ascribed to the general misery.[37] The next step was to name in the Colonial Report for 1849 the sudden scarcity of food due to the disappointing rice harvest, the despondency of the Javanese and their negligence of their own health as causes of the disease, along with the weather conditions and the volcanic vapours (*KV* 1849:96-9). Arguments we encountered earlier from Bosch's hand.

For Bosch this was apparently insufficient because a short time later he repeated his views in a brochure *De vermeerdering van Java's bevolking, beschouwd als de grootste bron van rijkdom voor Nederland* (The increase in Java's population, considered as the greatest source of riches for the Netherlands, 1851): the Cultivation System had not brought welfare; instead the Javanese were getting more impoverished every year, leading to an alarming rise in mortality. The population statistics revealed a considerable decline in population growth, and thus in 1850 there were two million fewer Javanese than if there had been no Cultivation System. The brochure is a clear accusation. An anonymous critic wondered whether 'it

37 Letter 12-1-1849 no. 24, Borgers, 1941:109-10.

is permitted, or can be reconciled with the military hierarchy, […], that a colonel-head of the Medical Service makes such a judgement concerning the actions of the government that he serves'.[38] An obvious question. The government did not impose any disciplinary measures, but withheld the usual tributes when he retired as head of the Medical Service. The resolution leading to his retirement at his own request did not contain a single word of gratitude or appreciation (Schoute 1937:149).

The issue continued to haunt Rochussen. In his critique of the draft Constitutional Regulation, J.P. Cornets de Groot van Kraaijenburg primarily focussed on the position of the governor-general. Among the examples of incorrect policy made by a governor-general, he named the prevention of the famine among the Javanese in Demak and Grobongan, the aid given to the Javanese ravaged by epidemic diseases and the abuse of the Cultivation System (Cornets de Groot van Kraaijenburg 1853:19). He had been able to follow closely the above described course of events around the request for advice, as secretary-general at the Department of Colonies in 1847 and – nota bene Rochussen's recommendation – as a member of the Council of the Indies in 1848.[39] Because most of the examples occurred during Rochussen's watch, it formed a thinly veiled criticism of his actions. That was how he interpreted it also, and he wrote a detailed defence claiming that the Cultivation System was not to blame for the epidemic.[40] The entire issue clearly still haunted Rochussen a few years later.

The famine left a deep impression for many years. S.E.W. Roorda van Eysinga, writer of the famous poem, *Vloekzang: De laatste dag der Hollanders op Java* (Malediction: The final day of the Dutch on Java), spoke about 'the blood guilt that the [Dutch people] have taken on through the famine in Demak and Grobongan in 1849' (Roorda van Eysinga 1866:iv). In 1860 he started working as a civil servant 'in poor Grobongan […], that was devastated and depopulated by our blind greed' (Roorda van Eysinga 1866:29). He also linked the epidemic to the Cultivation System. Even 40 years later, C.J. de Casembroot (1887:12), a former naval officer and coffee planter, mentioned the famine in his memoirs.

38 An anonymous critic in the *Goudsch Kronijkske* 10-9-1851, *Bespreking W. Bosch* 1851:143. The author (probably the editor of *TNI*, W.R. Baron van Hoëvell) suspected that J.D. van Herwerden, resident of Madiun, was behind it.

39 See the semi-official letter from Rochussen to Baud 22-7-1847 no. (24) 63, Baud 1983b:269.

40 Rochussen 1853:152-4. In his defence the longest section is devoted to refuting the criticism of the Cultivation System.

> People have apparently forgotten what happened under the governance of Mr. Rochussen in the Semarang region, especially in Demak, as a result of not taking the proper precautionary measures in time. I am referring to the terrible famine, in which many thousands of innocent Javanese died from hunger in this earthly paradise!

From the reactions of contemporaries, it would seem to have been a severe epidemic. Nevertheless, the government apparently underestimated its severity – whether deliberately or not – and expected it to run its course quickly. But in 1850 the residents of Semarang and Jepara were still being asked for proposals to alleviate the emergency.[41] Concerning the number of victims, the Colonial Report for 1849 stated that the epidemic had made 200,000 people ill and killed 82,447 in four years.[42] In 1849-1850 Central Java experienced poor harvests and famine for the second time, but now they were even severer, especially in Demak and Grobongan (Semarang), where 80,000 people died (Elson 1994:105-6). This reduced the population of Demak and Grobongan from 336,000 and 98,500 people in 1848 to 120,000 and 9,000 in 1850, respectively, a total of 305,500 victims in two years. That 1850 was the only year between 1849 and 1872 in which the number of natives on Java declined reveals the severity of the epidemic (P.J. Veth 1875:274-5). In P. Boomgaard's calculations of the mortality on Java in the nineteenth century, the period 1840-1850 stands out in a negative sense: 2.6%, while the mean was 2.4%.[43] It was thus definitely a severe epidemic.

Officials were also 'victims' of the epidemic, like the assistant-resident of Demak and Grobongan, S.A. Fraenkel,[44] and the resident of Semarang (Baud 1983a:138). Whether Director of Cultivations L.W.H. de Munnick simply returned to the Netherlands on leave is not clear. It is possible that his departure reflected his role in this event, which consisted of insisting that nothing was wrong.

The liberal I.D. Fransen van de Putte saw an awakening of the national conscience in the disclosure of the abuses surrounding the famine in Central Java (Dom van Rombeek 1917:551; Janny de Jong 1989:46). The reports about the epidemic certainly supplied the liberals with am-

41 GB 5-1-1850 no. 2, Van Hoëvell 1852:135.
42 *KV* 1849:96-9. W. Bosch 1854a:183 reported that there were about 50,000 deaths to mourn.
43 2.6 % is equivalent to 26 per 1000, Boomgaard 1987:50.
44 GB 9-4-1850 no. 1, Van Hoëvell 1852:136.

munition for their fight against the Cultivation System – they were in the majority in the Lower Chamber. In addition, a meeting took place in Jakarta in 1848 that the government painted as revolutionary. All of Europe was restless and rebellious around the middle of the nineteenth century, and now it seemed that this spirit had even spread to the colony. Taking everything into account – the persistent epidemic, the 'revolution' in Jakarta and the liberal majority – this led to amelioration of the Cultivation System. The forced labour services for coffee and sugar were reduced, and the sugar contracts were made less favourable for the contractual parties and more beneficial for the government and the population (Fasseur 1992:92-5). Furthermore, an annual sum of 25,000 guilders was made available for educating the Javanese: several three-year primary schools for natives and a teacher training college were established in Surakarta (Van der Veur 1969, I:1). The founding of the *dokter djawa* school can also be considered a result of the famine.

CONCLUDING REMARKS

The handling of the request for advice reflects the conflict between the conservatives and the liberals over the colonial politics: the conservatives Rochussen and Baud saw every infringement of the Cultivation System as an act of liberals such as Bosch and several health officers. Although Bosch was often undiplomatic, Rochussen nevertheless supported his proposal for the government to improve the medical help to the population, an unexpected attitude for a conservative administrator. Until then, the government had paid little attention to the natives' health because it did not suit the indirect administration method. Establishing the *dokter djawa* school was also a novelty in the colonial policy.[45]

45 Schoute (1937:85) pointed out that earlier in 1777, a petition had been presented to the VOC concerning native young men being educated in European therapeutics; this request had been dismissed.

4

Newcomers on the medical market, *dokter djawa* 1850-1875

In 1847 the head of the Medical Service, W. Bosch, advised the government to train natives as doctors to alleviate the misery of the epidemic in Central Java. He wanted to improve the medical assistance for the population by doing this. The graduates, called *dokter djawa*, were intended to replace the indigenous healers, the *dukun*.

MOTIVES FOR THE SCHOOL

In his letter of October 1847 to Governor-General J.J. Rochussen in which he formally submitted the proposal to train natives to be doctors, Bosch used a range of arguments to support it. First of all, he pointed out that the medical knowledge of the Javanese was limited and that the most enlightened natives therefore had no faith in the *dukun*; they preferred consulting European physicians if there was one nearby. In addition, it was apparent during the latest epidemic in Central Java that the *dukun* could do little, and the average natives had gratefully taken advantage of European medicines and treatment. Bosch felt that European medical help should not remain limited to special circumstances. He proposed training suitable native youths in the military hospitals to become doctors. This would benefit both the population, who would receive better help, and the government, which could count on population growth and thus on an increase in production in the Cultivation System, and thus a rise in income. He also envisaged a role in the near future for the graduates in combating syphilis. Bosch thought this would meet the wish expressed by many residents who wanted to train natives to do this, as the European physicians were overwhelmed by this 'devastating disease' on their own. Thus, not just for humanitarian reasons but also

for national interests, Bosch hoped that the governor-general would approve his proposal. It would not cost the country much, and some of the expense of the training would be reimbursed by the expected increase in population.[1]

Improved medical assistance for natives was the reason Governor-General Rochussen decided to support Bosch's initiative. Western assistance – 'which we currently consider the epitome of perfection in this science' – would remain wishful thinking for the natives for a long time to come, given the limited financial means and the many needs in the colony and in the homeland.[2] Both Bosch and Rochussen wanted to improve the medical assistance for the population and felt that what the *dukun* provided was inadequate, but they did not come to the conclusion of training the *dukun*. They wanted to introduce a new group of caregivers to the medical market: natives but ones with Western medical knowledge. They must have realised that replacing the *dukun* would only be partially successful as long as the population was ill-disposed towards Western medicine and the government refused to force it on them.

DECISION-MAKING

Bosch's proposal was submitted for review according to the standard procedure to the commander of the Indies Army, lieutenant-general F.D. Cochius, and the Council of the Indies. Cochius considered the greatest drawback of teaching in the proposed school to be the impossibility of increasing the duties for the health officers concerned, as it involved a civilian task and not a military one. In addition, not all officers spoke Malay or Javanese.[3] Rochussen felt that Cochius's concerns were not insurmountable. In any case, his objection that the health officers could not be given a civilian task did not make sense as they were formally responsible for the medical welfare of citizens. The Council of the Indies

1 Letter from Bosch to GG 11-10-1847 no. 134, in: NA, Koloniën, 1814-49, 2.10.01, inv. no. 1849, Vb. 7-4-1848 N 2/205.

2 Letter from GG 26-12-1847 no. 722/2, in: NA, Koloniën, 1814-49, 2.10.01, inv. no. 1849, Vb. 7-4-1848 N 2/205. At that time natives were already being trained in the larger hospitals, but apparently Bosch and Rochussen wanted to impose a more structural approach, AV 1849 residency of Rembang, Archief Schoute Rembang.

3 Letter from GG 29-11-1847 no. 10, in: NA, Koloniën, 1814-49, 2.10.01, inv. no. 1849, Vb. 7-4-1848 N 2/205.

approved the proposal.[4] Already in December 1847, just two months after submitting the proposal, the governor-general forwarded it to the minister of colonies, J.C. Baud, who sent it to the king.[5] This all took place before the constitutional reform of 1848; the king thus still had complete control over the colonies. Baud knew that a decision had just been made to stop all new civilian expenses in Netherlands Indies,[6] but he wrote, 'It seems to me that this proposal should form an exception to the rule specified in the beginning of this letter as it is in the interests of the population, and does not represent a great financial burden'.[7] The king agreed with his minister and issued a Royal Decree.[8]

The Colonial Report for 1849 reveals the administration's motives for establishing a medical school. After describing the limited knowledge and arbitrary methods of the *dukun*, there followed a list of possible problems arising if European physicians would help the population: the native would harbour prejudices against Western medicine, would only pay a tiny fee for it and probably would not follow the physician's prescriptions closely. A large number of European physicians would have to be sent to the interior where they would not find enough private patients to set up independent practices on the side. They would thus have to be paid salaries by the government in compensation (*KV* 1849:94). This report implies that the administration wanted to replace the *dukun* with Western physicians. It was aware of the population's resistance, but hoped that the native doctors would encounter this less than European physicians who were also too expensive. The text is ambiguous about whether the government intended to pay the native doctors – and then a much lower salary than the European physicians – or whether they would have to survive on small payments from the population. Disappointment was a real risk for European physicians because the death of a patient who had

4 Letter from GG 26-12-1847 no. 722/2, in: NA, Koloniën, 1814-49, 2.10.01, inv. no. 1849, Vb. 7-4-1848 N 2/205. Unfortunately, the text of the Council of the Indies recommendation could not be found for this book.

5 Resolution 26-12-1847, Archief Schoute Batavia .

6 Cabinet's resolution 13-3-1848, in: NA, Koloniën, 1814-49, 2.10.01, inv. no. 1845, Vb. 22-3-1848 no. 26.

7 Letter of acting Minister of the Navy and Colonies, J.C. Rijk to the king 7-4-1848 no. 2/205, in: NA, Koloniën, 1814-49, 2.10.01, inv. no. 1845, Vb. 22-3-1848 no. 26.

8 KB 23-3-1848 no. 104, in: NA, Koloniën, 1814-49, 2.10.01, inv. no. 1849, Vb. 7-4-1848 N 2/205. According to Kumar 2005:81, the medical training in British India served as a model. No indications for this were found in the sources. It is well-known that major-general F.B. Freiherr von Gagern did visit British India on his journey back to the Netherlands from the Indies and sent information about the medical training from there to The Hague, Von Gagern 1866:326-34.

ignored their prescriptions would be blamed on their incompetence and would result in patients' distrust of Western medicine and its practitioners. This was apparent from the memoirs of A. Pruys van der Hoeven (1894:61), who as a *controleur* in the interior of Sumatra occasionally supplied medical services:

> It is thus very difficult, when acting as a physician, to uphold the prestige of medicine. As *controleur* in Kajoe Tanam, Sumatra's West Coast, I personally experienced during a cholera epidemic that I distributed to the village heads two bottles given to me by the Medical Service, one with a white label for internal use, the other with a blue label for external use, and found out that in the kampong, to avoid confusion, the contents of both bottles were mixed and then alternately drunk and rubbed in by patients, until they died.

ASSISTANT DOCTORS OR VACCINATORS?

The Royal Decree of 1848 turned the proposal into reality, but it was not clear what the training programme would produce. It stated that funds would be granted to the governor-general 'to train native youths in the primary requirements for the exercise of medicine'.[9] The official name of the training programme was School ter opleiding van Inlandsche Geneeskundigen (School to train native doctors) (Lauw 1987:40). Bosch himself (1853:468) created confusion in the first place by stating in the application that the graduates could be employed as practising doctors and as vaccinators. Afraid that the graduates would not earn a decent living from their practice, he proposed employing them as vaccinators in preference to other candidates. Bosch referred to his earlier proposal of March 1846 on improvement of the vaccination regulations and the vaccination personnel.[10] Thus far, the government had not yet replied. From pragmatic considerations – he 'did not mean to go further than what he felt was feasible' (Bleeker 1877:33) – Bosch linked the two proposals

9 KB 23-11-1848 no. 104 cited in *KV* 1847-48:14; in the same *KV* on the same page, mention is made of additional funds to pay the hospitals to train native vaccinators. In this *KV* two different training courses seem to be involved.

10 Letter from Bosch to GG 11-10-1847 no. 134, in: NA, Koloniën, 1814-49, 2.10.01, inv. no. 1849, Vb. 7-4-1848 N 2/20; it concerns the proposal of 25-3-1846 no. 538.

together. He thought perhaps to kill two birds with one stone: the graduates had the prospective of a job, and the government would approve his proposal sooner to train young men to be doctors if they could also act as vaccinators. Bosch probably did not realise that this ambiguity – doctor or vaccinator – would make the graduates' position unclear. But it seems his strategy worked, as evident from the letter Governor-General J.J. Rochussen sent to Minister of Colonies J.C. Baud, in which he also combined the proposal for the doctors' training and an earlier proposal to improve the cowpox vaccination and pointed out that a joint course would be cheaper than the separate training of doctors and vaccinators.[11] This illuminates the risk of Bosch's strategy. Rochussen amalgamated the two proposals. His resolution of January 1849 contained the provision that 30 young men could be trained free of charge 'for the job of native doctor and vaccinator'.[12] In the Colonial Report for 1849, there was no mention of the subsidiary job of vaccinator, but according to the government's resolution of 19 June 1852, the graduates must be prepared to be posted as vaccinator and to provide medical assistance to the general public.[13] Most sources agree they would be given a dual function.

At the end of 1852, two months before the first cohort was expected to finish the course, there were discussions about their rights, duties and social position (Lauw 1987:92). In a letter to Governor-General A.J. Duymaer van Twist, Bosch rejected making the graduates equivalent to vaccinators; they had followed a sound training 'to be able to practise as a doctor among their people'.[14] He would like the title '*demang dokter*' to be given to them (Lauw 1987:94); *demang* was the title of a district chief.[15] The government asked several residents for advice.[16] They felt that *demang* was too high and advised not awarding the graduates any higher position than '*mantri cacar*', vaccinator (Lauw 1987:92, 94). The

[11] Letter from GG 26-12-1847 no. 722/2, in: NA, Koloniën, 1814-49, 2.10.01, inv. no. 1849, Vb. 7-4-1848 N 2/205. In an earlier letter from 2-11-1846 no. 618/57, the GG proposed to train vaccinators at the three large military hospitals on Java as a trial. This letter had not been answered by the end of 1847.

[12] GB 2-1-1849 no. 22, cited and repeated in GB 19-6-1852 no. 5, *Bijblad* 238.

[13] GB 19-6-1852 no. 5, *Bijblad* 238.

[14] Letter from head of the Medical Service to GG 30-11-1852, Lauw 1987:92.

[15] Van den Berg (1887:2-3) gives this sequence of native official titles: *bupati, patih, jaksa, wedono, demang, mantri.*

[16] Lauw 1987:94. Probably, this refers to a general request for advice in November 1852 about the training and the future graduates with questions about their title of address and the fees for their treatments.

residents of Pasuruan recommended paying the graduates the same salary as a vaccinator on Java, 40 guilders per month, but grant them their own title – *dokter djawa* – and permission to carry the *payung*.[17] The *payung*, a parasol, was the highest status symbol in the colonial society on Java and Madura in the eyes of both the native dignitaries and the European administrators. Bosch did not like these recommendations. In March 1853 he informed the governor-general that *mantri cacar* were 'the lowest Javanese (some were coolies), who did not know anything more than the simplest instructions for vaccination'.[18] Bosch feared that low social esteem would have a negative effect on applications from students from reputable Javanese families.[19]

Bosch's letter irritated the Council of the Indies. In the articles of association it was clearly specified that the graduates would have to be able to provide medical assistance, but that their job as vaccinator would be more prominent. Therefore, the Council advised granting the graduates the title and the privileges of a vaccinator, *mantri cacar*, and to put them to work as such.[20] The Council considered the title *dokter djawa* too elevated: 'The more the student is raised above his own station, to which his birth in the indigenous community consigns him, the less acceptance he will find in the community; the more envy he will engender in the higher and more privileged classes of society' (Lauw 1987:95). The Council distrusted Bosch and thought that he was aiming 'by means of these native doctors, to spread light and science […], i.e., to reform the indigenous community through them *in agreement with his own peculiar insights*'.[21] This reply shows that Bosch had a progressive image. The Council of the Indies clearly did not value scientifically trained doctors; better trained vaccinators were sufficient.

Governor-General Duymaer van Twist ignored these recommendations and instead stood squarely behind Bosch: 'I cannot agree [with the Council's supposition] that the head of the Medical Service must have failed to appreciate the intentions of the specified resolution [the articles

17 Letter from the resident of Pasuruan to GG 26-12-1852 no. 2681, Lauw 1987:94.

18 Letter from head of the Medical Service to GG 12-3-1853, Lauw 1987:92.

19 Lauw 1987:92. Bosch was inconsistent here: in his proposal to establish a school for native doctors, he had insisted that the graduates be granted the right to carry the same *payung* as a *mantri*. Lauw 1987:37.

20 Letter 5-4-1853, Lauw 1987:93.

21 Lauw 1987:95; the passage in italics was underlined by Lauw.

of association]'.[22] In his decree of June 1853, the governor-general formulated the aim of the training more specifically than before to put an end to all the discussion: native young men are given the opportunity 'to qualify for the position of native doctor and vaccinator, and that in this definition […] first the position of native doctor is given, followed by that of vaccinator' (Lauw 1987:96-7). He also felt that the title *mantri cacar* would not lead in the population's view to 'increasing the influence of and trust in doctors, without which they cannot prove their worth' (Lauw 1987:96-7). A new training course deserved a new title: '*dokter djawa'* (Lauw 1987:96-7). Despite his criticism of the government's policy and the strong tone he often took in his letters – and probably not just there – Bosch was again supported by the highest authority in the colony. In the Netherlands they did not agree: 'Why arouse envy of a title, by giving them this odd name *dokter djawa*'.[23]

The clear formulation of the government's resolution of June 1853 still did not put an end to the confusion. The graduates' diploma in 1855 stated that they were competent to 'fill the post of vaccinator and native doctor successfully' (Lauw 1987:65). The order was reversed here. Strategy or inconsistency? A few years later, in 1859, the diploma stated that the graduate was competent 'to practise medicine' (Lauw 1987:66); now vaccinator was not mentioned at all. But the argument for the graduates was not yet won, and their position remained vague.

PAYUNG

In one sense Governor-General Duymaer van Twist followed neither Bosch's advice nor that of the resident of Pasuruan, namely the right to carry a *payung*. In 1824 the Indies government had classified the titles, ranks and status symbols of the native civil servants in minute detail (*Ind. Stb.* 1824 no. 13). It had specified which civil servants were entitled to appear in public with a *payung*, a pike, a mat, a betel-nut set, and an entourage. Their rank could be read from the colours and stripes or circles on the *payung* (*Onderscheidingen* 1919:89-90). Three groups in the colonial society on Java carried the *payung*: first of all, the native administrators

[22] Citation from GB 5-6-1853 no. 10, Lauw 1987:96-7.

[23] Report of the committee charged with examining the report of the management and condition of the East-Indies possessions for 1854, presented in the meeting of 21-7-1857, *Handelingen TK* 1856-57, part 2:1243.

or heads, such as regents, assistant-regents and district heads, and also the Chinese heads (lieutenant, captain).[24] The second group consisted of lower native civil servants, the *mantri*. Apparently the vaccinators, the *mantri cacar*, had this right as we can deduce from the resident of Pasuruan's advice. The third group was formed of the highest Dutch administrators on Java, the residents and the assistant-residents. For this group, the right was repealed in 1904 by Governor-General J.B. van Heutsz.[25]

There is only one source that reports a European physician with a *payung,* namely that of Victor Ido (1966:13), pseudonym for Hans van de Wall (1869-1948), who recalls:

> Yes, I see the doctor visiting us at home in the 1890s in a long lustre coat with white trousers and a white or black vest. He stepped out of his smart, gleaming coach drawn by one large horse and a runner standing on the running board, armed with a flyswatter for the horse and a *payung*. This *payung* served as a parasol or umbrella for '*toewan* doctor' [the esteemed doctor] when getting in and out of the carriage, but it was also a sort of attribute of his station. At that time, a European, academically trained physician had an air of sanctity about them for the natives. As far as I can remember, they held a *payung* only over the head of the '*toewan* doctor', aside from the highest official authorities, especially en route to and from his patients. This was in the time of chamomile tea, leeches, mustard pastes and the Holloway salve.

This may have been an individual initiative by a vain family doctor, but it is also possible that Victor Ido gave his vivid imagination free rein, as he often did (Buitenweg 1966:5). Whatever the conclusion, the anecdote illustrates that the *payung* was the ultimate status symbol in the colonial society. It remains a mystery why Duymaer van Twist refused to grant this to the *dokter djawa*. While on the one hand he was against the lowly title of *mantri cacar,* on the other he refused to give them the symbol which would have garnered them respect in the indigenous society. The former teacher at the school for native doctors, J. Alken,[26] described with a dramatic flair what the lack of a *payung* meant for the *dokter djawa*:

[24] In the Principalities the Chinese heads carried a *payung* with a gold or gilded rim; in the other residencies the *payung* was black painted with red, Ko 1917:513-4.

[25] So-called *hormat* circular of 3-11-1904, no. 4377, *Bijblad* 6496.

[26] He was a teacher from 1860 till 1863.

> Once the course is completed, they are sent back to their villages to serve there as vaccinator or *tukang cacar*. They do not have a symbol of distinction, namely a *payung* and the retinue associated with that insignia, so they are on the same level as the kampong inhabitant. Their peers or kindred rise to the position of *mantri* or *wedono* or even higher posts, with all the pomp associated with that position, and with better pay, while throughout their lives they are stuck in one meagre job. When they move to the kampong, they are not received with a gamelan concert like the others are, because they are not owed any tribute, they have no rank in the indigenous society, as they do not carry a *payung* and have no claim to a retinue. (Alken 1867a)

THE COURSE

The School ter Opleiding van Inlandsche Geneeskundigen started on 1 January 1851 (Borgers 1941:11). The building in which the students were given their practical training lay on the grounds of the military hospital in Jakarta. At the time of its foundation, G. Wassink was the director of the hospital; he would later succeed Bosch as head of the Medical Service.

The *dokter djawa* school around 1896 (De Waart 1926a:12)

CURRICULUM

The training course lasted two years. In the first year the curriculum covered physics, chemistry, geology, botany and zoology (principles), human anatomy and physiology, and autopsy studies. Second year studies included surgery and operations done on cadavers; pathology, pathological anatomy and therapy; vaccine theory and skin diseases; materia medica, the most important medicines; and practical training in the clinic.[27] Clearly this was a wide range of topics, and much more than needed for a vaccinator. The first director of the school, health officer P. Bleeker, was critical of the colonial administration, just like Bosch, and a man with a great scientific curiosity; he developed into a world-famous ichthyologist. Very early on, he wanted to give the course a more scientific character: 'However little educated and prepared, the vast majority of students seemed to have an especially favourable aptitude, which led me to decide quite soon to widen the basis of the training, to extend the teaching to include all of medicine' (Bleeker 1877:34). We don't know which changes in the curriculum this led to, but the first director – naturally after approval by the Head of the Medical Service Bosch – clearly wanted to train the students to be doctors and not just vaccinators. There was no subject in the curriculum devoted to working with the population; most of the teachers had hardly any experience with native patients. The materia medica included indigenous medicinal herbs, though. Starting in 1850 the military hospital established a botanical garden to support these lessons.[28]

STUDENTS

The articles of association specified that 30 Javanese youths could be admitted to the school, preferably ones coming from respectable families.[29] Probably this referred to the *priyayi*,[30] the Javanese elite from which the native civil servants were recruited. F.D. Cochius, commander of the Indies Army, also assumed this in his response to the original school

[27] Wassink 1859a:233. Obstetrics was on the curriculum but was not taught. Borgers 1941:119 listed 16 subjects; Lauw 1987:60 described a variant of the curriculum with 16 subjects, including mechanics, teratology, geography, mathematics up to basic algebra, and geometry.

[28] Filet 1855:v.; A.R. Schouten 1926:126.

[29] GB 2-1-1849 no. 22, Lauw 1987:39.

[30] By respectable families around 1850, the elite is meant, Fasseur 2003:79, 82.

proposal: he considered it reasonable to grant the students an allowance during their training, as few natives would be prepared to be away from home for an extended period at their own expense. He doubted whether the proposed 15 guilders per month would be sufficient to attract natives with any refinement, who would be required if the programme was going to have a successful outcome.[31] In 1853 Bosch reported to the governor-general: 'The name of the school already has such a favourable reputation among the natives that even without having seen it, the aristocracy sends its sons to the institution, in this year and last year, including the regent of Ciamis's son, who is supported by his own means'.[32] The father's wish was the decisive stimulus because in the same year the final examination was set for the first time, and of the 11 graduates, only one was called *mas*, the lowest indigenous title.[33] Later there were more. Among the 81 graduates in the initial phase, 1853-1865, we encounter the title *mas* 15 times, *raden* 13 times, *si* 6 times,[34] *bagindo* once and *radja* once (Lauw 1987:appendix V). In total, 36 (44%) young men belonged to the *priyayi*.

A precondition for admission was the ability to read and write in Malay and preferably in Javanese.[35] This was a tough requirement in those days because hardly any education was provided for natives. In 1847 there were only 34 native students at the Dutch primary schools in the whole of Java.[36] Many Javanese did send their sons from their sixth to their twelfth year to Islamic religious schools (*pesantrèn*), where reciting the Koran – in Arabic – was done and Islamic dogma and ethics were studied.[37] But in these schools, in the first half of the nineteenth century, Arabic was rarely taught (Ricklefs 2007:49); probably, therefore, the teaching was not based on writing. In addition, the number of *pesantrèn* increased only after 1850 as part of the reform of Islam in the

31 Letter to GG 29-11-1847 no. 10, in: NA, Koloniën, 1814-49, 2.10.01, inv. no. 1849, Vb. 7-4-1848 N 2/205.

32 Letter from Bosch to GG 11-4-1853 no. 322, Archief Schoute Batavia; Ciamis lies in the residency of Cirebon.

33 Letter from G. Wassink [then director of the military hospital and thus probably present during the exams] to head of the Medical Service, W. Bosch, 5-4-1853 no. 96; Archief Schoute Batavia.

34 This was a title on Sumatra in contrast to Java, where it was a normal means of address used by the common man.

35 GB 2-1-1849 no. 22, Borgers 1941:115; Lauw 1987:39.

36 *KV* 1849:107; Kroeskamp 1974:27 calculates 34 in 1849; Brugmans 1938:139 arrives at 37 students.

37 Kroeskamp 1974:333-4; Brugmans 1961:153.

archipelago in those days (Ricklefs 2007:157). In sum, it was not easy for Javanese and Sundanese youths to meet the entrance requirements; in practice, not everyone did.

All that is known about the recruitment of students is that the residents had to give the head of the Medical Service the names of potential candidates each year on January 1, so the head could make a choice.[38] This was in all respects new: the government had never established a training programme for natives before; a Western boarding school was just as novel as the position of *dokter djawa*. For the population the difference between a *dokter djawa* and a vaccinator was not always clear and that would not have encouraged applications. The residents would probably have discussed the applications with the regents.[39] It is likely that the candidates registered because the regent asked them to: the *adat* required obedience by the lower-ranking person towards the higher-ranking person. We do not know for certain what the motives were of the students or of their parents to choose this training course, but there are indications from early on that the native elite thought that the graduates would enter government service.[40] This was not formally true. The fact that they could not carry a *payung* probably influenced the applications, as Bosch feared (Lauw 1987:92).

Because the graduates in principle would work in the region they came from, the applications would ideally be equally distributed over all the different residencies.[41] The first cohort came from Java, which explains the origin of the title *dokter djawa*, literally Javanese doctor. Not all the inhabitants of Java were Javanese; there were also Sundanese who did not always sympathise with the Javanese,[42] perhaps they were unhappy with the title of *dokter djawa.* In 1854 the first two students entered

38 GB 2-1-1849 no. 22, art. 3, Borgers 1941:116; GB 19-6-1852 no. 5, *Bijblad* 238.

39 The residents had agreed that each regency would delegate one student for the school in surveying in Cirebon, *Algemeen verslag onderwijs* 1855:188-9. Munnick 1912:137-8 describes how he unsuccessfully exerted pressure on the sultans of Tidore and Ternate to delegate a student for the teacher training school in Tondano. It is not unlikely that the recruitment for the *dokter djawa* school went through a similar process.

40 In the Priangan the *dokter djawa* complained that native heads and well-to-do natives did not want to pay them, claiming that the government was paying them, AV 1859, Archief Schoute Preanger.

41 Letter from Bosch to GG 11-10-1847 no. 134, in: NA, Koloniën, 1814-49, 2.10.01, inv. no. 1849, Vb. 7-4-1848 N 2/205.

42 After abolition of the Priangan system, the regents in the Priangan wanted to wear official dress, but not the same one as that of the Javanese. 'The Sundanese was simply not fond of the Javanese costume. His sympathy for the Javanese was not that great'. Van den Berge 1998:202-3. In Bandung there were separate chapters for Javanese and Sundanese members of Boedi Oetomo, Ricklefs 2001:208.

the programme from outside Java, namely from the Minahasa.[43] The low application rate from Java – 8 in 1854 and 3 in 1855 –contributed to the decision to expand recruitment to the Outer Islands (Wassink 1859a:235). Once the first non-Javanese had entered the programme, many more followed. Of the 20 new students in 1856, only 6 came from Java (Wassink 1859a:235). The students from the Outer Islands were not concerned about the *payung*, as it had no meaning there. They were often better educated than the Javanese. Boys in the Outer Islands may have been taught at government or private schools for indigenous Christians instead of the Islamic schools; there were almost 200 throughout the archipelago in 1852. The vast majority were established in the residencies of Menado and Ambon; there were only 5 on Java (Kroeskamp 1974:40-1).

THE GRADUATES AND THEIR TASKS, 1855-1865

In the period 1851-1863, 122 students took the programme: 76 of them graduated while 46 dropped out for various reasons. Of the 76 graduates, 30 were employed as vaccinators, and 11 found work in native clinics. The other graduates – about half – were assigned to the physician charged with the Civil Medical Service in their region.[44] All graduates, thus also ones with their own practice, were supervised by the European physicians responsible for the Civil Medical Service, primarily health officers, who were required not only to make sure they behaved properly but to promote their further development (*Ind. Stb.* 1856 no. 70).

If the graduates could not find employment immediately as a vaccinator or in a hospital and were not able to support themselves through their own practice, they could obtain a temporary allowance from the government starting from 1856.[45] The residents had to request it from

43 GB 22-4-1854 no. 1; 19-11-1854 no. 1, *Bijblad* 238.

44 *KV* 1863:89 listed 7 hospital doctors; Wassink 1859a:236 listed 11 hospital doctors; Lauw 1987:51 listed 76 graduates of whom 1 died, 38 became vaccinators, 11 worked in clinics and 26 provided medical services.

45 GB 19-6-1852 no. 5, *Bijblad* 238 gives what I feel is an overly rosy image: 'Those choosing this option enjoy from the government a stipend of *f* 15 a month and free accommodation'. This was also stated in *KV* 1849:94. Later, in, for example, *Ind. Stb.* 1856 no. 70, a temporary allowance was mentioned.

the government via the head of the Medical Service.[46] It amounted to 10-15 guilders per month (Lauw 1987:100), a small sum, about what students received during the training for an allowance. It contrasted strongly with the salary of the native teachers, which was set in 1858 at 30 guilders per month with a raise every 5 years to a maximum of 50 guilders (*Ind. Stb.* 1858 no. 53). A *dokter djawa* with a family could not possibly live on this amount in accordance with his status; he would have been dependent on his extended family, which would not have increased the popularity of the training. In the first years about half of the graduates ended up in such an unpleasant position.

Bosch's proposal to recruit the students from different residencies with an eye towards their future careers was accepted.[47] For medical assistance the population was unlikely to turn to someone coming from another region who did not know their language or customs. The colonial reports for the period 1858-1866 stated that almost all the students did indeed return to their region of origin.

There were various positions the *dokter djawa* could fulfill on the medical market, as given below.

VACCINATOR

The official name for a vaccinator was *mantri cacar*; in everyday parlance he was also known as *tukang cacar*.[48] The graduates of the *dokter djawa* school were to be preferred for positions as vaccinator.[49] Unhappily, just as the first cohort graduated, a new vaccination regulation came into effect that reduced the number of vaccinators employed, leaving hardly any vacancies. In West Java the number was reduced from 78 to 36 (*KV* 1852:72). Many were fired: for example, in the residency of Bogor four of the six vaccinators had to leave.[50] There was thus little need for new applicants: only 30 of the 76 graduates could find work as a vaccinator.

The training of normal vaccinators was focussed on giving injections and learning to distinguish the features of the vaccine; theory was not taught. It was offered in the hospitals in the three large towns on Java.

46 Resolution 11-5-1856 no. 3, *Ind. Stb.* 1856 no. 70.
47 GB 19-6-1852 no. 5, *Bijblad* 238.
48 Van der Burg 1887:342; confirmed by Professor emeritus A. Loedin in an interview on 8-2-2008.
49 Resolution of 2-1-1849 no. 26, *Bijblad* 43.
50 Resolution of 23-12-1852 no. 946, Archief Schoute Buitenzorg.

A vaccinator was a civil servant and had since 1824 the right to carry the *payung* (Lauw 1987:102). There was a wide range in the salaries of vaccinators: in the Priangan they received a raise in 1854 of 3 guilders to 21 guilders per month,[51] while their colleagues in Pasuruan received 40 guilders per month.[52] This was almost twice as much and against the rules, which prescribed a maximum salary of 25 guilders.[53]

It is not clear whether the graduates of the *dokter djawa* school who found positions as vaccinators enjoyed the same salary and status as the ordinary vaccinators. They may have been paid less because it was assumed that they would set up their own medical practice in addition to giving vaccinations. This appeared not to happen in practice. In 1859 Head of the Medical Service Wassink wrote that the first *dokter djawa* worked almost exclusively as vaccinators: 'Their activities are of such a nature that it is hard to imagine them running a medical or surgical practice' (Wassink 1859a:236).

HOSPITAL DOCTOR

If a *dokter djawa* worked in an institution, it was mostly a small clinic for natives located a few kilometres away from the place where the European physician was based. Formally speaking, the health care provided in the clinic was one of the European doctor's tasks, but he was rarely seen there because of the distance.

> The *dokter djawa* could be placed in the clinic, located 2.5 *paal* [almost 4 km] from the main base and accommodation of the health officer charged with the treatment of patients there. In many serious cases the *dokter djawa* could provide assistance while waiting for the arrival of the physician, which probably meant the patient could be saved, whereas before it had happened that the disease carried off the patient due to a lack of timely assistance.[54]

51 Archief Schoute Preanger 1854.

52 Archief Schoute Pasoeroean.

53 *Extract uit Register der besluiten van GG* to head of the Medical Service 24-2-1852 no. 23, Winkler and Noordhoek Hegt 1906:appendix Va, xi.

54 Archief Schoute Banjoemas 1860.

This was the case in a leper hospital in Krawang (Jakarta),[55] in institutions for prostitutes infected with syphilis in Kudus (Semarang), Madiun[56] and Cianjur (Priangan),[57] and in general hospitals for natives in Malang (Pasuruan),[58] Bandung[59] and Sumedang (Priangan)[60]. The *dokter djawa* in the clinics earned 20 or 25 guilders per month.[61] Apparently, the government also assumed that these *dokter djawa* would run their own practice on the side, which probably – as with their vaccinator colleagues – was hardly possible. In the hospital the *dokter djawa* was assisted by a *mandur*, an orderly, a servant, or a woman for the daily nursing tasks.[62] At that time in the Indies there was no training course for nurses, and this job was done by laypeople. The assistants' salaries ranged from *f* 8 for a *mandur*, *f* 6 for an orderly[63] to *f* 10 for both female and male servants in the native hospital in Malang.[64] Not only is the generous salary striking in Malang, also men and women earned the same amount. In the syphilis hospital in Bogor, the orderly even earned 20 guilders per month, only 5 guilders less than the *dokter djawa* there. There was praise for the *dokter djawa*'s enthusiasm,[65] but clearly little money.

Among the medical institutions, the facilities located near medicinal springs were special. In 1853 it was decided to build a spa at the spring at Tjibeokh (Banten) for the spa visitors and to appoint two *dokter djawa* to study the working of the medicinal springs; they must have come from the first cohort of graduates. When the head of the Medical Service, G. Wassink, visited the spring in 1854, he ascertained that the *dokter djawa* were –neither making any precise observations nor keeping records, which meant the effect of the springs was not clear. Nevertheless, in 1857 a second clinic was built beside a spring, and a third was added later, also in the residency of Banten. A *dokter djawa* was employed at each one. The government paid for the patients' food (Schoute 1936:339-40), which could explain the flood of patients.

55 Archief Schoute Krawang.
56 Archief Schoute Madioen.
57 Archief Schoute Preanger 1853.
58 Archief Schoute Pasoeroean.
59 Archief Schoute Preanger 1857.
60 Archief Schoute Preanger 1861.
61 *f* 20 in Bandung and Cianjur; *f* 25 in Krawang, Malang, Bogor.
62 Archief Schoute Japara.
63 Archief Schoute Krawang.
64 Archief Schoute Passoeroean.
65 Archief Schoute Buitenzorg, 1858.

Elsewhere as well, the government invested in medicinal springs. Each year a sum of *f* 4000 was made available for the treatment of sick natives at the springs at Cipanas (Priangan).[66] It is not clear whether this sum was meant to pay only for the food or also for the appointment of a *dokter djawa*.

PRIVATE PRACTICE

Right from the start the government assumed – partly or entirely out of self-interest – that the graduates would obtain sufficient income from their private practice, and thus Bosch's proposal that the government should pay them a fixed salary was considered excessive (Lauw 1987:38). It is not known how well the *dokter djawa* succeeded in the beginning in establishing their own practices. In combination with providing vaccinations and working in hospitals, it was definitely not possible. According to P. Bleeker, the *dokter djawa* were opposed by the European doctors when they tried to set up their own practice, and they were subordinate to them: '[T]hey were in general rejected and opposed, sometimes from disdain, sometimes from professional jealousy' (Bleeker 1877:36). This attitude described by Bleeker contrasted strongly with the official instructions to Europeans to encourage their development.

The government considered implementing a fixed tariff for the services of the *dokter djawa.* In November 1852 advice on this was requested from various residents.[67] The residents of Tegal, Pekalongan and Banten were in favour; the one from Cirebon was not because it would go against the *adat,* which ruled that services between natives must be rewarded with gifts.[68] The *adat* made it difficult for a *dokter djawa* to ask patients for payment given his low ranking in the indigenous hierarchy and his young age. A superior, socially higher or older, knew the etiquette, so to ask him for money would be presumptuous. If the *dokter djawa* was not paid by a superior, he had to believe that compensation would come at a better time. When Bosch was commissioned in March 1853 to prepare a proposal about payments, he advised against introducing fixed tariffs

66 Archief Schoute Priangan, 1863.

67 This happened at the same time the residents of Besuki and Pasuruan were asked for advice about the title to be awarded to the graduates. It is thus possible that all residents were asked in November 1852 for advice about the title, tariff, and so on. Schoute 1936:275-6 dated this request to 1855; this is incorrect, however, as already in 1853 a decision was made on this issue (GB 5-6-1853 no. 10).

68 Letter from resident of Cirebon to GG 5-11-1852, Schoute 1936:275-6.

(Lauw 1987:95), and the Council of the Indies agreed with him (Lauw 1987:96). Ultimately, the government did not introduce a tariff.[69] In practice, the payment situation created problems. For example, the *dokter djawa* in Priangan thought that native heads and affluent natives did not want to pay them because they assumed incorrectly they were civil servants receiving a salary from the government.[70]

OTHERS

The Civil Medical Service consisted of municipal physicians in the three large towns on Java, of civil physicians in the smaller towns and of health officers elsewhere, alongside their military duties. Often the last group complained that they were not able to provide satisfactory assistance, and equally often the residents complained that the officers did not adequately carry out their civil tasks. The *dokter djawa* would thus be a welcome addition, more hands at the bedside, as we would say today. In the colonial reports their employment during various epidemics was frequently praised.[71] For example, G.H. Muller, civil physician in Pekalongan, declared that two of the three *dokter djawa*-vaccinators present there at the outbreak of an epidemic in 1857 provided good services (Wassink 1859b:513-4). Head of the Medical Service Wassink emphasised his utmost satisfaction in his report for 1856: 'Several *dokter djawa* were charged during epidemics with providing medical assistance in the different villages. They managed to carry out the assignment in such a manner that it inspired trust in European medicine among the people there' (Wassink 1859a:236). Wassink apparently realised that the *dokter djawa* could be employed to reduce the resistance against Western medicine among the population; he assigned them the role of intermediaries.

APPRECIATION

Given the original objective of the training programme – offering Western medical assistance to the population to replace the *dukun* – it is

[69] GB 5-6-1853 no. 10, Lauw 1987:97; in 1855 this was announced to the regional administrators on Java and Madura and in 1859 to the administrators in the Outer Islands, Resolutions of 19-5-1855 no. 7 and 13-10-1859 no. 45, *Bijblad* 789.

[70] AV 1859, Archief Schoute Preanger.

[71] *KV* 1862:94; *KV* 1865:94; *KV* 1870:81.

important to know how much the *dokter djawa* were appreciated by their patients; there are, however, only European sources for this. Head of the Medical Service Wassink noted in 1863 that thanks to the *dokter djawa*, the population's faith in European medicine increased (*KV* 1863:89). As with his predecessor Bosch, Wassink stood squarely behind the *dokter djawa* school. He was more positive than some residents who wrote in their reports that the population was not favourably disposed to call on the assistance of the *dokter djawa*.[72] The natives had much less resistance to European medicines such as quinine;[73] its use nearly doubled between 1860 and 1866 (*KV* 1867-68:133). Some Europeans had great hopes for the *dokter djawa* school in the future: it was destined 'someday to spread rich blessings over Java'. The students would in time reduce the number of victims of the *dukun* as much as possible (Weitzel 1860:34-5).

reform proposals in 1863

In the middle of the nineteenth century, there was a discussion raging in the Netherlands about the standard medical training and the medical sector, a discussion that would culminate in 1865 in the medical laws of Thorbecke.[74] Some feared that these laws would only augment the existing shortage of physicians in the Indies. Perhaps that is why L.H. Verwey, a doctor in The Hague with experience in the Indies,[75] suggested in 1861 founding a medical college for Europeans in Jakarta. He received support from the former director of the *dokter djawa* school, P. Bleeker. Head of the Medical Service Wassink felt the proposal was premature (De Waart 1926a:4); he seized on Verwey's idea to substitute a more realistic proposal, namely an improvement of the *dokter djawa* training.[76] He

72 Archief Schoute Bagelen 1856, 1857 and Archief Schoute Buitenzorg 1858.

73 While quinine does come from Peru, it was administered in the Indies by Western-trained physicians. Therefore, I call it a 'Western' medicine.

74 J.R. Thorbecke (1798-1872) was prime minister at that time; he was also the initiator of the revision of the Constitution in 1848.

75 L.H. Verwey has a publication under his name, *De acclimatatie van Nederlanders in Indië, en van Indiërs in Nederland* (1863) [The acclimatisation of Dutch people in the Indies and of Indies people in the Netherlands], which suggests that he had experience as a doctor in the Indies. Lindeboom 1984 did not mention this, however. Archief Schoute Krawang reported that a Dr. Verwey was appointed as a physician there in 1851 and departed two years later.

76 In a letter dated 5-11-1861 to the GG, Wassink asked for authorisation to make proposals for improvement. He submitted the proposals 18 months later in a letter to GG 30-5-1863 no. 750a, Lauw 1987:50.

described its benefits in detail. Not only would the graduates be able to offer Europeans assistance in places where a European physician would not find a decent living, they – more than European doctors – could persuade the population to trust the Western medicine. Again it is clear that Wassink was considering their role as an intermediary.

> The *Drs Djawa* […] know how to approach their fellow countrymen in such a way as to quickly win the trust of patients, they appear to support their weakness, but have enough knowledge of people to convince them, with patience and gentleness, to show them the error of their ways, that the European way of treating disease is the best choice and deserves the greatest trust.[77]

The mortality among the natives should decrease, especially during epidemics, which would be beneficial for the government not only in humanitarian but also in material terms. There would be more labourers to work the fields (Schoute 1936:277-8). In 1863 Wassink submitted the following reform proposals:

a. 'increase the number of students from 30 to 50 and extend the two-year course by another year.
b. employ the *dokter djawa* exclusively to provide medical assistance in the residencies from which they originate and only assign them elsewhere under exceptional circumstances.
c. grant the *dokter djawa* a monthly income of *f* 30 with a raise every 5 years to *f* 50.
d. permit them to carry a particular model of *payung*.
e. place them directly under the command of the regional administrators and subject them to the orders of the head of the Medical Service.
f. give every *dokter djawa* a well-filled medicine chest, at the country's expense and to benefit the population, and make them responsible for it.' (*KV* 1864:80)

In his clarification Wassink referred to the multiplying requests for *dokter djawa* from regional administrators and to the growing number of appli-

77 Letter from Wassink to GG 5-11-1861 no. 1304, Archief Schoute Batavia.

cations from indigenous youths. The latter appeared to be wishful thinking because so far the maximum number of students had never been reached. Wassink considered it essential to extend the training because two years may have sufficed for good vaccinators but not for doctors. He wanted to use the additional year for lessons in, for example, Dutch.

REACTION TO THE REFORM PROPOSALS

As usual, advice about this proposal was sought, including from the director of Finances. The latter did not see any need to increase the budget; the government had already done enough to offer the population medical assistance. He did not feel it was necessary to raise the number of students because at that moment there were only 17 students studying the course instead of the maximum of 30 (Lauw 1987:53). The Council of the Indies also felt that the 30 available places would have to be filled first before expansion could be considered. It believed it was possible for the *dokter djawa* to combine their medical practice with the vaccination service. The Council was against a fixed salary because the population had to get accustomed to paying for medical assistance. In addition, it feared that a fixed income would not stimulate the *dokter djawa* to work hard. It rejected the *payung* to prevent alienation between the native doctor and the population.[78] The final result was that the Council rejected all of Wassink's proposals except the medicine chest.

Governor-General L.A.J.W. Baron Sloet van de Beele sent Wassink's reform proposals, including his recommendations, to Minister of Colonies I.D. Fransen van de Putte. In his accompanying letter, he declared that he did not share the objections of the Finance director nor those of the Council of the Indies.[79] In turn, the minister requested advice from three Indies experts, namely P. Bleeker, the first director of the *dokter djawa* school, A. Pruys van der Hoeven, assistant-resident of a region on Sumatra's West Coast,[80] who was on leave in the Netherlands, and J. van Swieten, retired lieutenant-general, former commander of the East Indies army and former governor of Sumatra's East Coast.[81]

78 Recommendation 14-8-1863 no. XCII, Lauw 1987:100-1.

79 Letter 4-10-1863 no. 5, Lauw1987: 54.

80 *Almanak Nederlandsch-Indië* 1863. He was the son of C. Pruys van der Hoeven, professor of internal medicine in Leiden, also known as the father of hygienists.

81 He would be 'called out' again in 1873 to act as commander in Aceh.

For the revision of the *dokter djawa* training programme – nothing more than a detail within the entirety of colonial politics – a second round of advice in the Netherlands was apparently considered necessary. Most likely, it was an attempt to refute the negative recommendation of the Council of the Indies. Bleeker supported Wassink's proposals passionately and argued strongly for the introduction of Dutch as the language for teaching.[82] Pruys van der Hoeven advocated for appointing academically-trained European physicians and paying them good salaries, not transferring them often and supporting them with vaccinators, native doctors and midwives. To provide candidates for the latter two positions, each large town on Sumatra would have to have a training institute like the one in Jakarta. Few Sumatrans wanted to go to the school in Jakarta, and when they returned from there, they were ignored by the general population, or took an arrogant tone towards the village heads. He also recommended allowing the *dukun* to take the training course. He hoped by doing so to add Western science to the local medical knowledge that he felt had great value.[83] This was an unusual and original recommendation, because he – contrary to most of his compatriots – valued indigenous medicine. In his memorandum, Pruys van der Hoeven stated that he considered good care for the population as a means to encourage their reliance on Dutch authority: 'The writer can confidently predict that where medical supervision works well, a sufficient number of bayonets can be decommissioned, and the savings will amply cover the payment of the medical civil servants'.[84] Pruys' view of medicine as a tool of empire was quite unusual in those days.

Clearly, Van Swieten had read Pruys van der Hoeven's memorandum; as civil servants active in Sumatra, they probably knew each other. Van Swieten agreed with Pruys van der Hoeven that more medical care was required in the Indies, but he felt academics were too expensive. Therefore, he advised increasing the number of native doctors:

> We must not look down on the potential services they could offer, because it is not a great stretch of the imagination to suggest that they could

[82] Letter 3-2-1864 no. 20, Lauw 1987:54.

[83] Memorandum medical civil servants for Sumatra 16-11-1863, in: NA, Koloniën, 1850-1900, 2.10.02, inv. no. 1433, Vb. 27-1-1864 no. 18.

[84] Memorandum medical civil servants for Sumatra 16-11-1863, in: NA, Koloniën, 1850-1900, 2.10.02, inv. no. 1433, Vb. 27-1-1864 no. 18.

> meet the expectations placed on them and could be acceptable doctors for their fellow countrymen, given the population's simple lifestyle and the uncomplicated disease forms that occur among them and helped by advice from their supervisors, the European physicians.[85]

For Van Swieten the following was as important as for Pruys van der Hoeven: 'the more we civilise the natives in our way of life, the more assured will be the peace and the feeling of sympathy for our authority'.[86] In other words, both of them assigned the *dokter djawa* a role as intermediary.

IMPROVEMENTS IMPLEMENTED

After these three recommendations, Minister I.D. Fransen van de Putte adopted Wassink's proposals with the exception of the right to carry the *payung* (*Ind. Stb.* 1864 no. 184; *KV* 1864:80). *L'histoire se repète*! It remains noteworthy that attracting upper-class students was still considered important as they could exercise a favourable civilising influence on the population, while at the same time refusing to grant the graduates that status symbol of the elite, the *payung*. Ultimately, the graduates had a right to a salary, the same one as teachers since 1858 (*KV* 1864:80). Furthermore, the implementation of the reform proposals in 1864 clarified the position of the graduates. While the objective in establishing the school was formulated as teaching them to 'become a native doctor and vaccinator', this changed in 1864 to training 'doctors and surgeons' (Lauw 1987:57-8). Unfortunately, this clarity did not last long because as early as 1867 it was specified that *dokter djawa* were preferred for the position of vaccinator (*Ind. Stb.* 1867 no. 4). The new head of the Medical Service, A.E. Waszklewicz, ascertained that a *dokter djawa* as vaccinator could provide medical assistance on the side and thus acquaint the population with Western medicine.[87] Here again there is a role for the *dokter djawa* as intermediary.

With the appointment of Waszklewicz as head in 1864, the policy

[85] Memorandum medical civil servants for Sumatra 16-11-1863, in: NA, Koloniën, 1850-1900, 2.10.02, inv. no. 1433, Vb. 27-1-1864 no. 18.

[86] Letter 24-12-1863, in: NA, Koloniën, 1850-1900, 2.10.02, inv. no. 1433, Vb. 27-1-1864 no. 18.

[87] Letter from head of Medical Service to member of the Council of the Indies, O. van Rees, 27-2-1866 no. 101, Lauw 1987:88.

became less ambitious and perhaps more realistic. He wanted to keep Malay as the language of instruction at school; learning Dutch during the training course would take too long in his opinion and was unnecessary. He focussed more on the practice: in the final exam from then on, both theory and practical knowledge would be tested rather than just theory (Lauw 1987:64); and he proposed a mandatory year of practical experience for the new graduates in the municipal hospitals of the large towns. This proposal was presented to the residents of the three large towns, who asked the municipal physicians for their opinion (Lauw 1987:111). Although this seemed a complex procedure for a simple change in policy, it was sensible because the implementation of this change depended on the attitude of the municipal physicians who ruled the municipal hospitals.

Two of the three municipal physicians in Jakarta said they did not have the time to supervise the graduates; given their low salaries, they had to reserve time for a private practice. Both had time enough, however, to express their objections in detail on paper. The third municipal physician hoped for the appointment of more *dokter djawa*. In sum, the resident concluded that it would be better not to implement the proposal (Lauw 1987:134-5). But in Semarang, the first municipal physician was prepared to do anything to educate the graduates further as he was completely convinced of their usefulness (Lauw 1987:114). In Surabaya, it was a matter of chance whether you were assigned to the first or the second municipal physician for your practical training: the first considered the posting of a *dokter djawa* a good thing and wanted to have another one himself. The second required you to work hard and did nothing but criticise, often unjustly.[88]

Despite the divided reactions – proponents and opponents were balanced – it was decided in 1868 to introduce the practical year (Lauw 1987:136). Within a year the first municipal physician in Jakarta reported dismissively about his experiences with the trainee doctors: their work 'was always well done previously by an ordinary *mandur* [supervisor], and it is completely unnecessary to train youths all these years at great expense, to learn by heart many learned words in different languages'.[89] The third physician was also disappointed in his trainee doctor, because

88 Lauw 1987:108. The negative judgement of the second municipal physician in Surabaya was so evidently unfair that the resident did not include it in his memorandum.

89 Letter from Steenstra Toussaint to the resident of Batavia 18-9-1868 no. 92, Lauw 1987:113-4.

the latter had forgotten everything he had been taught during the course.[90] Such an almost hostile learning environment could not have been optimal for gaining practical experience. The negative attitude of the municipal physicians in Jakarta was known far and wide; the Council of State reported in a letter to King William III in 1874 that European physicians in the Jakarta hospitals did not tolerate *dokter djawa* as assistants (Lauw 1987:115). But the first municipal physicians in Semarang and Surabaya were full of praise for the graduates and found their presence extremely helpful (Lauw 1987:114).

One of the changes from 1864 concerned awarding a fixed salary to the *dokter djawa*. The Indies government created a special cost item in the budget for this at the end of 1867. In a dispatch the recently appointed minister of Colonies, J.J. Hasselman, only agreed to this to avoid delay, but he was not convinced of its usefulness or necessity. He felt that by offering free training, the government had already fulfilled its task. With the promise of a fixed income at the end, the number of students would rise, and the wrong type of youths might be attracted. In addition, the graduates could become lazy, and it might prevent them from establishing their own practice. He asked the Indies government for a response.[91] Since the extensive reorganisation of the local administration in 1867, the Civil Medical Service and thus also the school fell under the Department of Education, Religion and Industry. Its first director, L.J.W. de Waal, took full advantage of the dispatch to evaluate the training. First of all, he requested a response from the head of the Medical Service, A.E. Waszklewicz,[92] but he did not wait for it before issuing a circular in August 1868 to the regional administrators to ask whether it would be better to stop the *dokter djawa* training. In addition, the residents were asked for information about the behaviour and the services of the *dokter djawa* in their region.[93]

90 Letter from the third municipal physician to the resident of Batavia 4-9-1868 no. 88, Lauw 1987:114.

91 Dispatch 6-12-1867, lett. I, no. 25/1490, *Historisch overzicht* 1898:19.

92 Recommendation of head of the Medical Service 29-2-1868 no. 388. *Historisch overzicht* 1898 does not report what Waszklewicz wrote about the *dokter djawa* course.

93 Circular 4-8-1868 no. 4833, *Historisch overzicht* 1898:22, 31.

CRITICISM OF THE TRAINING COURSE

The discussion in the Netherlands about the medical training and the medical sector had come to a conclusion by then. The laws of Thorbecke from 1865 made medical education uniform: only a university course would lead to a medical licence exam. This meant the dissolution of the clinical schools and of the Rijkskweekschool voor Militaire Geneeskundigen in Utrecht where the health officers were educated; they, too, would have to take the medical licence exam from now on. This produced a fierce discussion between proponents such as Prof. F.C. Donders, former student and former teacher at the Rijkskweekschool, and opponents such as J.A. Fles, also a former teacher. Fles (1867a:7) feared that the mandatory medical licence exam would aggravate the already insufficient number of health officers in the Indies. In 1868 there was a shortage of 40, one-quarter of the staff (De Knecht-van Eekelen 1992:409-10). In his second brochure, more a pamphlet, Fles (1867b:6) admitted the following about the Indies: '(BECAUSE OF THE LACK [of enough health officers], natives were trained to perform as *dokter djawa*)'. The director of the *dokter djawa* school, E.P. Tombrink, did not take that lying down. He replied in detail to this phrase, even though it was in parentheses. In an open letter to Fles in the *Javabode* – one of the largest newspapers in the colony (Termorshuizen 2001:461) – he admitted the shortage of physicians in the Indies, but wrote that it was impossible ever to attract enough European doctors for a population of 20 million. He had great faith in the *dokter djawa*. The corps of native doctors had 'become a powerful means to strongly promote trust in our European administration, which leaves a lot to be desired in the Outer Islands' (Tombrink 1867a).

The open letter from Tombrink stimulated reactions in the Indies from opponents of the *dokter djawa* course. Two anonymous writers of a critical article concentrated on the overloaded curriculum and on the director of the school. They also questioned the willingness of the population to call on the *dokter djawa*.[94] Obviously, this required a reply from Tombrink (1867b): on the one hand, he appreciated the interest in the school; on the other, he deplored the anonymity of the critics. He denied that the study load was excessive. He was not a proponent of introduc-

94 A to Z minus 1 and X, 'Eene kritiek', *Javabode* 25-5-1867 no. 42.

ing Dutch; Malay would over the course of time be just as suitable as any other language for teaching science. The applications from candidates proved that the local population in that area trusted this type of medical assistance, and thus graduates would find sufficient employment there. Several days later the previously mentioned former teacher of the school, J. Alken (1867a), replied with an article in which he stated that the graduates were not eligible to work as doctors due to the poor training. Learning Dutch was absolutely essential because the teachers did not know enough Malay and because the graduates must be able to take refresher courses. He argued for a thorough reform of the programme. In his rejoinder Tombrink (1867c) emphasised the improvements introduced in 1864, which Alken would not have personally experienced as he had retired from the school shortly before, in August 1863. After a last reply from Alken (1867c), the editorial board stopped the exchange in the *Javabode* and concluded that the programme did have a 'great calling' but that so far it had only delivered a few superficial results.[95] This discussion blew over to the Netherlands; several anonymous articles appeared in the *Nederlandsch Tijdschrift voor Geneeskunde*. A certain Q (1868:530) had supervised the final exam and heard nothing other than 'lessons learned by heart'. According to him, the *dokter djawa* were only intended to deceive the public (Q 1868:533). Naturally, the government in The Hague took notice. In May 1869 Minister of Colonies E. de Waal demanded clarification from Governor-General P. Mijer about the recent, unfavourable reports on the *dokter djawa* school.[96]

THE GRADUATES AND THEIR TASKS, 1865- 1875

The proof of the pudding is in the eating, or did the changes from 1864 have the intended effect on the position of the *dokter djawa*? The following comparison of posts filled by the 85 *dokter djawa* graduates in 1868 with those of the 102 graduates in 1873 answers the question (Lauw 1987:88-91). Wassink's changes could not yet have affected the group from 1868 as they had only just been implemented.

95 Redactie, *Javabode* 6-7-1867 no. 54.
96 Letter 31-5-1869 no. 12/690, Lauw 1987:132-3.

	Total 1868	**Total 1873**	**Proportion from Java and Madura (1873)**	**Outer Islands (1873)**
Vaccinator	38 (45%)	37 (37%)	16	21
Hospitals/clinics	7 (7.5%)	10 (10%)	9	1
Private practice	19 (22.5%)	50 (50%)	31	19
Assistant-teacher	-	3	3	-
Spas	-	2	2	-
Combination (mostly vaccinator + private practice)	21 (25%)			
Total	85 (100%)	102 (100%)	61	41

Table 4.1. Table of employment of graduates from 1868 and from 1873.[97]

The re-introduction by Waszklewicz in 1867 of the rule that *dokter djawa* would be preferred for vaccinator posts had no effect; on the contrary, in reality – as evident from table 4.1 – the percentage of *dokter djawa*-vaccinator had decreased. In the Outer Islands in 1873, still almost half of the graduates worked as vaccinators. It cannot be deduced from the table that the number of graduates with their own practice had doubled in the 1868-1873 period because in 1873 there was no mention of graduates with a combined position. It does confirm that more *dokter djawa* had their own practices. Working in a clinic was practically unknown in the Outer Islands as native clinics were first established there at a later date.

One year after his appointment as director of Education, Religion and Industry, De Waal declared he was no longer willing to uphold the rule that graduates should be assigned to their region of origin as far as possible because 'experience has shown […] that after a 3-year stay in Jakarta, the *dokter djawa* is not so strongly attached to his birthplace any longer' (Lauw 1987:91). Most likely, De Waal just wanted to be free to assign the graduates anywhere because the number of Javanese students was insufficient to meet the demand from Java. Abandoning this stipula-

97 Lauw 1987:89-91. The figures given in Lauw deviate from those in *KV* 1870:81, where it was stated that there were 41 *dokter djawa*-vaccinators in total in 1869.

tion in 1868 had an effect because in 1873 half of the graduates were working outside their residency of origin (Lauw 1987:91).

VACCINATOR

The payment of vaccinators improved in the period between 1865 and 1875; they now earned 45 guilders per month.[98] In addition, they had a right – except in the residency of Jakarta – to three *herendienstplichtigen* (*Ind. Stb.* 1867 no. 123 and no. 124), while a *dokter djawa* had none. A *dokter djawa* was not immediately appointed a vaccinator; he was first an apprentice-vaccinator (*KV* 1866:98). It is alleged that he earned the same in this position as the *dokter djawa*, namely 30 guilders per month, still much less than the salary of a vaccinator; the government apparently still assumed there would be income from his own practice. The above-mentioned former teacher J. Alken (1867a) knew that the graduates would not have time for their medical tasks because they had their hands full with the vaccination programme. He described complaints in letters from former students that they were only being used as vaccinators.

In this period 37 or 38 *dokter djawa* worked exclusively as vaccinators. They formed a small minority in the group of 228 vaccinators on Java and Madura and 178 in the Outer Possessions in 1869 (*KV* 1870:81). In 1874 it was ascertained that there would have to be more uniformity in the payment of vaccinators in the archipelago and that the salary on Java would have to be reduced to *f* 30 per month (*KV* 1874:126): the same as the salary of the *dokter djawa*. Given the difference in training duration, this was unfair. It is depressing to read in an official circular of 1869 that 'an intelligent, physically capable native can be trained quickly, even in one day […] to substitute temporarily for the position of vaccinator'.[99] And for a job that was so easy to learn, the government employed *dokter djawa* with their three years of training.

98 *Ind. Stb.* 1867 no. 125; according to Lauw 1987:102, *f* 45 per month with a raise of *f* 10 every 5 years.

99 Circular of Department of Education, Religion and Industry to the regional administrators 24-7-1869 no. 5919, appendix IV, Winkler and Noordhoek Hegt 1906:viii.

HOSPITAL DOCTOR

The number of native doctors in native clinics remained constant (10) despite the increase in the number of graduates and the number of institutions. For example, in 1849 there were two leper institutions on Java and Madura, while in 1870 there were four and another ten in the Outer Islands (*KV* 1870:78). The increase in the number of native clinics thus did not automatically translate into more employment opportunities for *dokter djawa*. Probably it was felt that native clinics could manage with a *mandur* or orderly. Sometimes there was a link between a new clinic and the employment of the native doctors. When the assistant-resident in Krawang in 1868 was allowed to build a small hospital in three districts, he delayed construction of the bamboo buildings until three youths from that region had been trained as *dokter djawa*.[100]

In the Pegirian institution in Surabaya, 4.5 km outside the town, beside the marine base and near the brothel camps, about 300 infected women remained under the supervision of the police. They were examined weekly by the first municipal physician and twice a week by a *dokter djawa*. In Malang 12 sick prostitutes were nursed under the supervision of a *dokter djawa*; they were accommodated in a civilian clinic on the grounds of the military convalescent home.[101]

PRIVATE PRACTICE

Two improvements in 1864 likely contributed to the fact that more graduates were capable of running their own practice. The government salary of *f* 30 per month gave them a steady income. Then in that year they were given a filled medicine chest; previously, a *dokter djawa* had to procure his own instruments by borrowing or obtaining them from the nearest European physician. Purchasing them was impossible given their measly salary; borrowing or obtaining them made the *dokter djawa* dependent on the European physician, who was not always kindly disposed to them. The contents of the medicine chest give a good impression of the tasks of a native doctor: medicines such as castor oil and quinine, tools to make medicines such as a mortar and a set of scales,

[100] Archief Schoute Krawang.

[101] According to Head of the Medical Service Reiche during his inspection tour of Java in July-August 1871, Archief Schoute Semarang.

and instruments to carry out small interventions such as treating an abscess.[102] The government paid to keep it refilled (Lauw 1987:105), which produced some problems especially in the large towns. For example, the apothecary in Semarang refused to fill prescriptions from *dokter djawa* that had not been authorised by the health officer (Lauw 1987:131). In Jakarta they went even further: the Commissie van Geneeskundig Onderzoek en Toevoorzigt [Committee for Medical Research and Supervision][103] refused to allow the *dokter djawa* to write prescriptions and run a private practice independently (Lauw 1987:137). This matched the view of the municipal physicians in Jakarta who were very negative about the *dokter djawa.* Two of them were members of this Committee. This opposition on the part of some European physicians and apothecaries seems infused with racism. No critical remark was ever heard about the fact that *controleurs* without any medical training had a medicine chest and could distribute medicines. Perhaps because they were Europeans?

OTHER ASPECTS

From the start *dokter djawa* were deployed during epidemics, like the fever epidemic in Semarang in 1866-1869. Fourteen additional native doctors were sent to the afflicted area to visit the kampongs twice a day, administer the medication and search for the sick. This last aspect was necessary because many natives avoided treatment, for example, by hiding away or pretending to be healed. Even in an epidemic, Western physicians and medicines apparently encountered resistance. During the fever epidemic in the residency of Cirebon in the first half of 1867, seven additional *dokter djawa* were seconded there (*KV* 1869:75). The epidemics in Semarang and Cirebon were so severe that all graduates from 1869 were assigned to the afflicted areas (*KV* 1870:81). In both epidemics their activities were greatly appreciated (*KV* 1870:81). At the same time an epidemic raged in the residency of Pekalongan, for which no additional native doctors were recruited. However, each of the two *dokter djawa* working in the residency

[102] *KV* 1875:appendix III, 166-7; according to the Director of the school, L.P. Tombrink (1867a) the medicine chest contained 24 medicines.

[103] Schoute 1936:70. This Committee had the following tasks, among others: conducting exams for physicians, midwives and apothecaries; supervising the general state of health in the town; supervising the nursing of civilians in the hospitals and implementing the vaccination programme.

received a bonus of *f* 150 (*KV* 1866:98), an enormous sum in comparison to a monthly salary of *f* 30.

In this period *dokter djawa* were still being employed to nurse indigenous patients at hot springs in the residency of Banten. They not only had to treat the sick, they were also expected to investigate the medical efficacy of the mineral water.[104] In 1874 Civil Medical Service inspector G. Luchtmans visited the three spas, where a total of two *dokter djawa* were employed.[105] They gave him a list of diseases of the patients, and Luchtmans confirmed that the springs did not have any effect on any of them. The *dokter djawa* had been instructed not to administer medicines in cases of syphilis, probably to prevent an interference of these medicines with the study of the springs' healing properties. Although untreated syphilis was a terrible disease, the patients in Luchtmans's view may have been better off without treatment than with the poor treatment of the *dokter djawa* in question, whom he labelled 'a medical dunce'. His conclusion was clear:

> According to my profound conviction, there is no benefit of the hot springs, without medical treatment. The *dokter djawa* has been instructed not to carry out real medical treatment, and I don't think he is capable of it anyway, and as a result I consider every guilder spent by the government on the spas to be wasted. Just as I am convinced of the unspecific medical effect of the springs, I am likewise profoundly and morally convinced, though unfortunately I cannot prove it with legitimate witnesses, that the 10 cents paid per day by the government to feed the sufferers ends up in the wrong pocket, that of the *dokter djawa*.[106]

After this damning report, the government support of the spas was stopped (Schoute 1937:179).

In 1866 for the first time, graduates were appointed as assistant-teachers at the school. The best students were chosen.[107] Both in 1866

104 Archief Schoute Bantam 1870; *KV* 1871:110.

105 It would have been one of his first assignments, because he was appointed inspector on 5-3-1874, *Almanak Nederlandsch-Indië* 1875:452.

106 Report about the bathing facilities in the residency of Banten prepared by Inspector G. Luchtmans 10-8-1874, Archief Schoute Bantam.

107 Art. 13 Regulations of STOVIA from 1899, De Freytag 1899:55.

and in 1867 the assistant-teachers came from Sumatra.[108] This cannot be a coincidence. Probably the Christians with their good preparatory schooling had a head start over their Islamic colleagues.

At the end of this period, in 1874, in several small areas when the health officer was absent, the local *dokter djawa* was asked to take over the duties of the Civil Medical Service (*KV* 1874:128). A native doctor was now considered sufficiently competent to carry out a task that had previously been reserved for Europeans, if only as deputy.

In this period a *dokter djawa* was only occasionally employed by a private company, or wanted to be. In 1867, Malim Boengsoe worked for the Billiton Society and was the head of the hospital in Mangar (Tombrink 1867c). In 1874, a *dokter djawa* asked for permission to work at several spice plantations on Banda. He was not granted this, and so he resigned (*KV* 1875:127). Apparently, *dokter djawa* could not have their own practices anywhere in the archipelago while retaining their government salary.

APPRECIATION

In the 1868 survey, the residents were asked to evaluate the *dokter djawa* in their residency. This produced a range of results. The residents of the Priangan, Semarang, Yogyakarta and Rembang were very positive. They argued for an increase in their number and improvement of their position (Lauw 1987:107). From three other residencies (Belitung, Kedu and the western part of Kalimantan) there was an urgent demand to send more *dokter djawa* to help alleviate the desperate shortage of medical assistance there (Lauw 1987:108). Many residents ascertained that the graduates did not have sufficient knowledge to deal with severe cases, but they could help with slight defects and preventive measures;[109] the latter probably referred to vaccination. Others noted that they could only function under the supervision of a European doctor (Lauw 1987:108). But that did not mean that the *dokter djawa* were not appreciated. The resident of Besuki was very happy with them: since 1857 there was one employed in his residency and three after 1864, who were so good at dealing with fever and beriberi that 'they were indispensable' (Schoute 1936:334). But Pruys van der Hoeven, at that time assistant-resident of Bengkulu, was critical of the six *dokter djawa* working in his district in 1866:

[108] Respectively, *KV* 1866:98 and Lauw 1987:124.

[109] Lauw 1987:107-8; Lauw specified Timor twice incorrectly, therefore I have left Timor out here.

> They perform little in general, they seem to have adopted manners on Java that are not in favour with the population, put on airs, are lazy and cannot stand up to, or are rather averse to, tiring travel throughout the area. The population does not trust them in turn, and prefers the traditional way of the *controleur* dispensing medicines for free with friendly advice, than to pay money or chickens for a haughty treatment from the fancily dressed *Dr. Djawa*.[110]

The residents of Banyumas and Banyuwangi were also disapproving. In their residencies they saw disappointed *dokter djawa* who were not allowed to carry a *payung*, did not have labourers (*herendienstplichtigen*), and thus showed little enthusiasm for their work (Lauw 1987:108). The resident of Krawang could understand why the vacancy in his region was difficult to fill 'given their tiny salary compared to other native civil servants and their very unpleasant working environment'. They needed to be paid more than the *mantri cacar* who received a higher salary with much less training, two labourers (*herendienstplichtigen*) and the right to carry a *payung*'.[111] Some residents remarked in the survey about how little use the population made of their services (Lauw 1987:109). In the residency of Sumatra's West Coast nine *dokter djawa* were established, but the population preferred 'the traditional medicines and the *dukun*' (Lauw 1987:107, 110).

Finally, a few positive voices. The resident of the Priangan, C. van der Moore, wrote in his general report for 1867: 'The trust that the population started to place in the *dokter djawa* in previous years has increased further in the past year. […] The regents and the most prominent heads let themselves be treated, especially for serious diseases, by the European physicians.'[112] When visiting Padang (Sumatra's West Coast) in 1875, the former teacher J. Alken (1882:3) was delighted to note that one of his students had a thriving practice there and that 14 years after graduating he still remembered the teaching and had developed further. Within the Javanese elite there was interest in the *dokter djawa* programme; the final exam results were published in *Bramartani* (Ricklefs 2007:156), the first

[110] Schoute 1936:334. Pruys van der Hoeven suggested here that the *dokter djawa* wore a suit adorned with braid, but they were only entitled to this in 1870.

[111] Archief Schoute Krawang 1870.

[112] Archief Schoute Preanger 1867.

Javanese newspaper, which was established in 1855.[113] It is too much to consider this the Javanese elite's appreciation of the work of the native doctors. Perhaps this newspaper, which in general was positive about Western education and Western science (Ricklefs 2007:158-60), only wanted to emphasise that this educational possibility existed. It seems unlikely, however, that the newspaper would have highlighted the training programme if the graduates' work was not appreciated.[114]

The majority of the residents thus produced negative reports, although there were nuances. A minority was satisfied with the *dokter djawa*, a few considered them a solution for the shortage of medical assistance. The poor labour conditions, including not being allowed to carry the *payung*, were considered partially responsible for the shortage of native doctors.

THE *PAYUNG* AGAIN

In 1867, the official attire for the native teachers was specified in detail with the associated symbols of distinction, including the *payung* (Lauw 1987:30). Perhaps it was this that prompted two *dokter djawa* a year later to submit a request to the resident of their region to be allowed to carry the same symbols of distinction as the vaccinators had been permitted since 1824. The resident forwarded it on. After consulting the director of Education, Religion and Industry, L.J.W. de Waal, and the director of the Civil Service, it was turned down by Governor-General P. Mijer, although De Waal had advised giving the *dokter djawa* who were paid by the government the right to carry the *payung*.[115] This recommendation suggests that there were already more *dokter djawa* in private service than just the two mentioned above. Perhaps De Waal wanted to make government service look more attractive. In any case it seems that he found the *dokter djawa* were useful for the government.

The rejection by the governor-general is partly based on the argument that a *payung* was one of the status symbols of native heads and

113 Ricklefs 2007:130. The newspaper folded at the end of 1856, to reappear in 1864 as *Jurumartani*, and later again under the name *Bramartani*.

114 Its pages reflected the expanding horizons and interests of the Javanese upper classes, Ricklefs 2007:159.

115 Report from 1882, *Bijblad* 3861.

civil servants, while *dokter djawa* did not belong to either category.[116] The salary awarded in 1864 evidently did not mean that they had become civil servants. But De Waal noted in the same year, in a statement about *dokter djawa* having corvée (*herendiensten*), that they were civil servants and thus were entitled to the privileges of the native civil servant (Lauw 1987:104). It is embarrassing that discussions were held about whether *dokter djawa* had corvée while vaccinators were entitled to such labourers, *herendienstplichtigen*. The governor-general also refused to grant the *payung* because he felt there was no reason to

> increase the *dokter djawa*'s standing among the population by artificial means, when they should be striving to attain that status through useful activities and raising themselves to an honourable position in the indigenous society; that ostentation and celebrations of personal vanity do not match their calling of attending sickbeds, while their training in Jakarta should have taught them that true greatness is not embodied in finery, but in knowledge and diligent devotion to duty, and also that the symbols of authority can only be worn by those who are called to it.[117]

Natives should thus know their place and should definitely not put on airs. This suited the reasoning of a conservative politician such as P. Mijer. Apparently, the government felt that the *dokter djawa* would have to earn a position through merit. It would not lend a helping hand. However, we know that in the same period the Indies administration was occupied with the status of the *dokter djawa*. In 1866 it was specified that henceforth an ill student would be treated in the military hospital as a second-class patient and not in the fourth class of primarily servants, native soldiers and quite often forced labourers, taking into account their status and vocation (Lauw 1987:69). Thus, the doctors were required to maintain a certain distance from common folk given their status, but they were not allowed to carry the external symbol of this, the *payung*. The 'ostentation and celebrations of personal vanity' could strangely enough be combined with positions like teacher and vaccinator. On another note, Director E.P. Tombrink (1867c), who strongly supported the school and its students, was opposed to granting the *payung* and *herendienstplichtigen*. He would prefer them to get a higher salary: 'With the spread of general

116 Resolution 26-8-1868 no. 27, *Bijblad* 2157.
117 Resolution 26-8-1868 no. 27, *Bijblad* 2157.

civilisation among the population, to which our *dokter djawa* undoubtedly do contribute, such privileges will disappear in time on their own. Thus, we would rather see the pioneers of our Western civilisation elevated above all ostentation, working against the common man.'

DRAWING UP THE BALANCE

In 1873 the balance was drawn up: since the foundation of the school 299 students had been admitted, 163 from Java and Madura, and 136 from the Outer Islands. Of these, 12 had died, 23 dropped out because of illness or at their own request, and 72 were expelled for misconduct; 43 were still at the school (Lauw 1987:84). We note an enormous premature loss: 107 of the 256 students (42%). In addition, the maximum capacity of the course – first 30 and then 50 from 1864– was not always reached because the total number of students would then have been 345.[118] Those who dropped out at their own request did so most likely because of poor prospects or because they had found better employment in the meantime. Waszklewicz had hoped that the fixed income introduced in 1864 would stop graduates from looking for other work (Lauw 1987:101). It did not lead to a decrease in the drop-out rate, however. There were also students who left for other reasons. One of them explained it thus:

> Sir will recall that I submitted my resignation from the school several days ago. I didn't do it because I consider myself too stupid, I have always learned well and understood the lessons, sir can ask teacher Taslim about this. I did not want to leave because of misconduct, sir never had to punish me, and can enquire of the supervisor whether he ever had any complaints about me. Now that sir is giving me the chance to express myself freely, I would like to tell you why I am leaving. It was because, once I have graduated as a *dokter djawa*, I would still be called stupid. That is the reason why I don't want to stay here three years more.[119]

[118] For 1851-64 the maximum was 30, and the course lasted 2 years; thus at most 6 ½ x 30 =195 students could have been admitted; for 1864-73 the maximum was 50, and the course lasted 3 years; at most 1/3 x 9 x 50=150.

[119] De Waart 1926a:9-10. When this student learned about the improvements in the course for 1875, he decided to stay.

If we take a look at the 149 young men awarded a diploma between 1851 and 1873, we arrive at an average of just seven graduates per year. Of these 149 graduates, 20 had already died, 16 had left the service because of illness or at their own request, and 11 had been fired because of incompetency (Lauw 1987:91). There were thus 102 in government service (68%). The loss among the graduates is in some cases unavoidable, but it can be partly attributed to the poor working conditions. Those who resigned of their own accord must have had a better alternative in mind such as employment in a private company. Only 40% of the number of students who started the training were still in government service.

new start in 1875

Let us return to the request from The Hague in May 1869 for a reply to all the criticism and commotion. Civil servants in Jakarta had since received the replies to the 1868 survey and had probably made the same calculations as given above about the outcome of the programme. Something had to be done, a choice made between closing the school or extensive improvement. The time was ripe for a radical choice at the same moment that several changes in the top personnel took place. Since 1867 the school was supervised by Director for Education, Religion and Industry L.J.W. de Waal. In 1868 a new director was appointed to the school, J.J.W.E. van Riemsdijk. Action could only be undertaken, however, after the departure of Head of the Medical Service A.E. Waszklewicz in April 1870; with his retirement the last of the men present at the foundation departed, the group that heart and soul defended the school and would not tolerate any criticism. After the appointment of the new head, M.Th. Reiche, De Waal, Reiche and Van Riemsdijk regularly discussed the training programme. In December 1872 Reiche was formally requested by the director for Education, Religion and Industry to make recommendations about the *dokter djawa* course,[120] and a year later the essential proposals for improvement appeared.[121] Just like in 1864, they included an increase in the number of students (from 50 to 100) and lengthening of the duration of the course (from

[120] Letter 21-12-1872 no. 12010, *Historisch overzicht* 1898:30. The same letter also assigned the task to evaluate closing the midwifery school.

[121] Recommendation 28-6-1873 no. 994, *Historisch overzicht* 1898:33.

three to five years: two years of general education and three years of medical tuition). Analogously, increasing the number of students was considered unnecessary because the maximum had never been reached. New aspects included the proposals to introduce Dutch as the language of instruction and force the graduates to work in government service for ten years (Lauw 1987:141). The latter proposal was probably meant to reduce the drop-out rate. For the first time, not a word was said about the *payung*. Probably the rejection in 1868 was still fresh in their memories, or perhaps such an indigenous status symbol did not suit the vision of the new top management of the training programme and its graduates. By choosing Dutch and a considerable extension of the training, they may have wanted to revamp it to make it more Western.

These proposals followed the usual path of progression: from the director of Education, Religion and Industry to Governor-General J. Loudon for advice to the Council of the Indies, and finally to the Crown.[122] The only modification made along the way was the removal by the Council of the Indies of the obligation to work in government service for ten years. The Crown did indeed ask for advice from the Council of State, which in turn consulted good old Bleeker, who must have been delighted to see his old wish – Dutch as the language of instruction – finally coming true. With a Royal Decree, the proposal was approved (Lauw 1987:140-2). Concurrently, it was decided to close two other medical programmes: the midwifery school and the veterinary school. The authorities were apparently convinced that well trained native doctors could fulfil a useful function in the Civil Medical Service.

FINALLY, THE *PAYUNG*

Just when it seemed that they would have to forget about the *payung* forever, the issue was stirred up again by a *dokter djawa*, Mas Prawiro Atmodjo. In 1882 he submitted a request to the resident of the Priangan to be allowed to carry the *payung*; the resident forwarded the request to the director of Education, Religion and Industry, W. Stortenbeker, Jr. In his recommendation to the governor-general, Stortenbeker pointed out that the government had prescribed official dress for this group of

[122] Respectively: letter from the director of Education, Religion and Industry to GG 2-10-1873 no. 9651 and Indies letter from 5-11-1873 no. 1594a/25, *Historisch overzicht* 1898:30.

civil servants in 1870 and that in 1875 the position of *dokter djawa* had improved enormously. In November 1882 Governor-General F. s'Jacob gave his permission; the *payung* was granted to the *dokter djawa* working on Java and Madura in government service. After all, this status symbol was not used on other islands. In his considerations, s'Jacob wrote,

> that it is not unimportant for the government to help support the *dokter djawa*, whose training costs a lot of money and effort, to gain in respect among the population, whereby the trust in their learning and competency cannot but increase; that in addition the granting to the *dokter djawa* of an official *payung* deserves recommendation, because it can be expected that it would encourage young men of good families to apply for the gainful employment.[123]

That the training cost a lot of money seems exaggerated given the tiny budget reserved for the programme. The argument that the *dokter djawa*'s standing and expertise would increase in the population's eyes by carrying the *payung* had been stated several times in the past, for example by Bosch who had hoped to interest young men from good families in the profession by this means. Probably this was the real reason behind the approval. At that time three-quarters of the students came from a low social class.[124] The government had apparently been convinced in the meantime – partly because of the 1875 reforms – of the usefulness of the *dokter djawa* in the Civil Medical Service, and greater success could be expected if more students would apply from a better social background. Then the only question remaining is why the government did not grant the *payung* of its own accord.

BUDGET

The budget reserved for the training programme has already been mentioned in passing several times. In March 1848 the cabinet decided to stop all new civilian expenses in the Netherlands East Indies.[125] This

123 Resolution GG 3-11-1882 no. 2, *Bijblad* 3861; *KV* 1883:117.

124 *Jaarlijksch verslag STOVIA* 1906:appendix 10; see table 6.2 in this book.

125 Cabinet resolution 13-3-1848, in: NA, Koloniën, 1814-49, 2.10.01, inv. no. 1845, Vb. 22-3-1848 no. 26.

Dokter djawa Samgar in full splendour: *payung*, bare feet, *kain*, folded cloth as a headdress, official cap in hand, medal decorations and (golden?) watch chain on the coat. It is a photo from 1920. (Photo collection KITLV 2915)

apparently was not strictly enforced because shortly thereafter it was decided to commit *f* 5,400 per year for the new training of native doctors.[126] Governor-General Rochussen noted that this was a very small expense in comparison to the great benefit that was expected.[127] In the same year (1848) a considerably higher sum, *f* 25,000, was reserved for setting up schools for the Javanese population, aiming particularly at the training of civil servants,[128] likewise, an area of policy that the government had not previously invested in. That there indeed was a restricted budget is apparent from the denial in 1848 of the governor-general's request for an additional amount for the vaccination programme of *f* 30,000 per year,[129] although this was not a new policy and thus did not formally come under the budget restrictions. In 1850 this request was

126 GB 2-1-1849 no. 22, art. 2, Borgers 1941:115.

127 Letter from GG 26-12-1847 no. 722/2, in: NA, Koloniën, 1814-49, 2.10.01, inv. no. 1849, Vb. 7-4-1848 N 2/205.

128 KB 30-9-1848 no. 95, Kroeskamp 1974:299.

129 NA, Koloniën, 1814-49, 2.10.01, inv. no. 1845, Vb. 22-3-1848 no. 26.

granted along with *f* 20,000 to combat syphilis (Schoute 1936:269), also not a new item in the budget.

On the one hand, these are the years of the *Batig Slot*, which in 1851 alone produced *f* 7,879,447, a huge sum, making it difficult to understand the need for budget restrictions. On the other, the proceeds from the Indies financially supported only the mother country. Governor-General J. van den Bosch had the budget of 1835 declared binding for the future. Only expense items for the government plantations could be increased; other expenditure was frozen at the 1835 level. The budget for a particular year was only set when it was known how much was 'left over' from the previous year, with the result that the Indies budget was not set until halfway through the financial year. Governor-General Duymaer van Twist wanted to end this practice: he wanted the budget to be ready before the start of the financial year. He also wanted to make the budget he prepared for 1852 the standard instead of the one for 1835. The minister of Colonies was not in favour, however, given that the draft budget for 1852 was higher than the one for 1835. He stuck to the principle that items could not be increased without permission from the administration in The Hague (Zwart 1939:89-93). The power of the governor-general over finances was limited. Even over a relatively small expense – in comparison with the *Batig Slot* – of *f* 5,400 for the *dokter djawa* school, he could not issue a command. In another sector – irrigation projects – the financial latitude of the governor-general – or his interest – was apparently bigger. In the 1850s, the Brantas irrigation project was only realised through his generous support: '[H]e granted the necessary funding, a sum of 24 tons of gold, without consulting the supreme administration [in the Hague]', according to H. de Bruyn, the later director of the Department of Civil Public Works (Van Doorn 1994:138). Against such a sum, the amount for the *dokter djawa* training pales in comparison.

CONCLUDING REMARKS

The training programme for native doctors was a novelty: the government had not made itself formally responsible before for the health of the population and invested in it. But it sounds better than it was because for a structural sum of *f* 5,400 per year – and a one-off sum of *f* 6,978 for the construction and furnishing of the school – it was a cheap experi-

ment. Minister of Colonies J.C. Baud said something very similar when in 1847 he talked about a proposal with 'no major financial obstacle'. For a pittance the government could make a generous gesture towards the liberal opposition in Parliament: one of the motives for establishing the training programme was humanitarian, better health care for the population. The desire to stop 'the devastating evil' of the damned *dukun* must not cost too much money. As the population of Java grew enormously in the nineteenth century[130] – despite the assumed poor health of the population – that was not an argument to improve their care.

The experiment was not only cheap, it was also half-hearted. While the government did pay for the training, for a long time it was unclear what to do with the graduates. Or as the first Director P. Bleeker wrote, '[T]he school's success did not generally extend much further than the school itself' (Bleeker 1877:36). At the beginning, the graduates were employed as vaccinators with a lower wage – and poorer labour conditions (no *payung*, no *herendienstplichtigen*) – than the normal vaccinators because it was assumed that they would establish their own private practice. At the same time, the government held back important elements for their own practice such as a fixed salary, a medicine chest and the *payung*. Their position as vaccinators did increase their usefulness for the government, giving them the right to exist, while in their function as *dokter djawa*, they still had to prove their value. The half-heartedness was expressed in the low payment: first it concerned a temporary subsidy, which was later transformed into a regular payment and even later into a salary and government employment. The labour conditions stood in shrill contrast to those of the native teachers and vaccinators.

The poor labour conditions had various effects. It is not inconceivable that the application rate from Java was so low in comparison with that from the Outer Islands because of the ban on carrying the *payung*, a status symbol used only on Java. The high drop-out of students can be partly ascribed to this. The poor prospects gave some students a reason to search for another job. A few graduates found work with a private company, where the labour conditions were better. At a certain moment the government realised that it could probably counteract the students leaving by improving the labour conditions, such as awarding a fixed salary and the *payung*.

[130] Many sources reported this, including Ricklefs 2007:252.

Which position did the newcomers occupy in the medical market? Given the low number of graduates – 102 in 1873 – their influence cannot have ever been great. Among the population there was a general resistance to Western medical assistance and thus against the *dokter djawa*, but during epidemics they did accept help, and the *dokter djawa* were useful then. Sometimes they experienced competition from *controleurs* who were popular with the population because they gave away medicines for free. Some European physicians did sabotage the *dokter djawa* they were supervising out of professional jealousy; therefore, it was decided in 1864 to place the *dokter djawa* under the supervision of the local regional administrator instead.

There are various indications that the government wanted to employ the graduates as intermediaries in the medical market to introduce Western medicine to the population. From its establishment, official documents and elsewhere referred to the fact that *dokter djawa* were more effective than European doctors, given that they would be more likely to win the trust of the population for Western medicine. European doctors usually did not know the vernaculars well enough to communicate. Many spoke Malay more or less, but that was a language of commerce and not the languague of the native population itself. The *dokter djawa* spoke their languauge and knew their customs certainly if they returned to their region of origin. This benefit was lost when for pragmatic reasons the government abandoned the principle that graduates would work in their region of origin.

All in all, it is a marvel that the school still existed in 1875 and even more that the training programme was being radically improved. It is a wonder that the founder of the school, W. Bosch, who was known to be a critic of the colonial administration, was supported twice at critical junctures by the supreme authority in the colony, the governor-general. And it is also amazing that despite the poor labour conditions and other problems, there were still enough native doctors who wanted to do this work. Their accomplishments showed how useful they could be for the government and how they made the government willing to invest in the training programme.

5

More newcomers on the medical market, native midwives 1850-1875

Two days before the head of the Medical Service, W. Bosch, officially submitted a plan for the establishment of a school for doctors, he had proposed founding a school for midwives. Because the motives behind them both were identical, it can be viewed as one project. Bosch wanted to improve the medical assistance available for the population and replace the *dukun* with Western-trained native doctors and midwives.

BACKGROUND

The idea of training native midwives dated from the beginning of the nineteenth century.[1] In the regulations of the Civil Medical Service of 1809, the municipal physicians in the three large towns (Jakarta, Semarang and Surabaya) were tasked with training indigenous women as midwives with the intention ultimately to replace the incompetent *dukun bayi* (Schoute 1936:39). Starting in 1817 European midwives were obliged to train native (and European) women as midwives.[2] In the same year C.G.C. Reinwardt, director of Agriculture, Arts and Sciences, suggested appointing a municipal obstetrician who would assist with difficult deliveries and teach midwifery to the *dukun bayi* because their 'extreme ignorance and audacity still expose women in childbirth and the unborn child to the greatest mortal danger' (*Historisch overzicht* 1898:3). It seems none of these plans was ever carried out (*Historisch overzicht* 1898:3, 8).

When filling the vacancy of second municipal midwife in Jakarta in December 1836, the training of native midwives was again broached.

[1] As early as 1807, Hull 2008:148.

[2] De Freytag 1899:45-6. *Historisch overzicht* 1898:8 talks about art. 31 of the *Provisioneel reglement voor den geneeskundigen dienst te Batavia en Ommelanden* of 1817 that was never implemented.

According to the head of the Medical Service, E.A. Fritze, she should be capable of teaching midwifery to indigenous women in order to meet the need for midwives in the Outer Islands. About two years later, in 1839, a suitable woman was found.[3] In the meantime Fritze had been succeeded as head of the Medical Service by P.J. Godefroy, who agreed with the plan in principle. He did note three major problems, namely the costs, finding suitable indigenous women as students and the uncertainty of whether pregnant women would want to give birth in the midwifery clinic (*Historisch overzicht* 1898:4). The history of the school for midwives would prove Godefroy right: his objections turned out in practice to be all too real, and it is strange that they were treated so casually at the time. The resident of Jakarta had listened to his native civil servants – men of course – who were optimistic about finding suitable female students and poor pregnant women who would be willing to give birth in the clinic if the education and the treatment were free of charge (*Historisch overzicht* 1898:4). Most likely, these male civil servants, *priyayi*, had in mind female students or women in childbirth from a lower social class than themselves. The only remaining difficulty would be the cost. Godefroy sent the proposal to establish a midwifery institution with a budget estimate for advice to the Department of Finances in September 1839.[4] Because the Dutch government had decided just three months earlier, in June 1839, to curtail expenses for the Netherlands Indies,[5] Godefroy must not have had much faith in this advice. The outcome was actually negative (*Historisch overzicht* 1898:5). Ultimately, the plan did not go through because of financial objections.[6]

MOTIVES FOR THE SCHOOL

Although the head of the Medical Service, W. Bosch, was acquainted with this background history, he pointed out to the government in October 1847 the necessity to improve midwifery assistance for the Javanese population and proposed establishing a midwives' school for

3 In Resolution 24-7-1839 no. 2 she was appointed second municipal midwife, *Historisch overzicht* 1898:4.

4 Missive 12-9-1839 no. 988, *Historisch overzicht* 1898:4.

5 Resolution 17-6-1839 no. 6, *Historisch overzicht* 1898:8.

6 Resolution 1-11-1839 no. 10, *Historisch overzicht* 1898:5; Schoute, 1936:155.

native girls.[7] In his motivation he emphasised the ignorance of the *dukun* and the risks for women in childbirth and the babies. Based on his own experience as health officer in the Indies in the period 1818-1839, he could write, 'You have to have seen the ill-treatment they are subjected to at that time to understand the harm this inflicts on the population, to be able to feel what the pitiable woman is suffering!'[8] The more enlightened natives called in the assistance of European midwives, Bosch continued, but the majority of the population had no other choice than to subject themselves to the rough treatment of the *dukun*. He reminded the government of its responsibility for 'the destruction of numerous human lives through ignorance and superstition carried out under our very eyes, with our knowledge and hence our consent'.[9] The argument of population growth through better medical care, which Bosch had used for the *dokter djawa* school, he did not mention explicitly for the school for midwives. His successor as head of the Medical Service, G. Wassink, did employ it (*Historisch overzicht* 1898:17); he stressed that for him and for his predecessors Godefroy and Bosch 'the negative consequences, arising from the entirely inadequate knowledge of the indigenous midwives, concerning the natural process of normal childbirth, and their complete ignorance in deviating conditions that do occur' formed the motivation to establish a midwives' training programme (Wassink 1859b:657).

Different heads of the Medical Service thus were critical about the expertise of the *dukun bayi*. They were not alone in this; health officers and other European physicians had also described the horrific practices in the villages during labour supervised by a *dukun*.[10] Descriptions are so similar they seem to have been copied. When health officer G.H.G. Harloff (1853:389) expressed a different opinion in the *Geneeskundig Tijdschrift voor Nederlandsch-Indië*, the editors added the following postscript to his report:

> The editors feel that they must point out that this author's information only gives a tiny indication of the horrible practices applied to women in labour, by the Javanese and other populations on the islands in the

7 Letter 9-10-1847 no. 132, W. Bosch 1854a:197.
8 Letter 9-10-1847 no. 132, W. Bosch 1854a:197.
9 Letter 9-10-1847 no. 132, W. Bosch 1854a:197.
10 Harloff 1853:386; Broekmeyer 1856:40; Ludeking 1856:546-9; F. Engelken, health officer 1st class in Surakarta and Th. Keyzer, civil physician in Madiun named in Wassink 1854b:548, 558-9; Greiner 1860:650-62; Arntzenius 1867:99 -118.

> archipelago. The number who die as a result, both mothers and children, whether before, during or just after delivery, is horrifyingly high.

A more balanced image was clearly not desired. At the beginning of the twentieth century, N.A.J.F. Boerma, professor of midwifery at STOVIA, still wrote, 'I could continue listing case histories, often heartening, sometimes gruesome'.[11] And P. Peverelli (1947:27), head of Health Care in the province of West Java just before the Second World War, wrote retrospectively, 'There is no topic about which so much has been written, so many case histories and horror stories reported, as midwifery'.

Most physicians in Europe also had a low opinion of midwives (Van de Borg 1992:131-9), which they took with them to the Netherlands Indies. Even in an official document like the *Memorie van Toelichting* (Explanatory Memorandum) for Thorbecke's legislative proposal in 1862 about the structuring of the medical sector, the following appears:

> The general appreciation of the class of midwives has sunk ever further, to the detriment of society. This is one of the reasons why in some places they are sought out less, and the standard of the women who dedicate themselves to this occupation is reduced. One of the means of elevating this class would be to refuse those at the beginning who through very limited development of intellect and knowledge, or less virtuous behaviour, are not suitable for the occupation of midwife.[12]

In her thesis *Vroedvrouwen: beeld en beroep* (Midwives: image and profession, 1992), A.H. van der Borg shows that the negative image of midwives in literature does not match the real situation in several cities in the Netherlands in the period 1650-1865. Apparently, the negative stories about midwives were believed and copied without question.[13] For example, at the end of the nineteenth century, the physician A. Geyl used essays from physicians and obstetricians from the seventeenth and eighteenth centuries as sources for his argument about the position of midwives. He wrote that 'the midwife of the seventeenth and eighteenth century […] had a low intelligence, and even lower morals, if that is

[11] Boerma 1926:233.

[12] J.J. Klinkert 1980:49.

[13] Schoon 1995:15 confirmed this: 'The stigma of ignorant midwives is continuously reproduced in medical history writing'.

possible'.[14] Physicians from the twentieth century based their writings in turn on Geyl (Van der Borg 1992:16). Van der Borg (1992:71) pointed out that the authors probably ignored the fact that only the problematic cases in the midwives' practice were recorded, producing a picture that was not representative. This applied also to the horror stories from the health officers in the Indies, who were only called in to assist when there were complications. Normal deliveries were assisted by the *dukun bayi* with whom the population was satisfied in general, but whose methods the government wanted to eliminate.

A DELIVERY IN THE VILLAGE[15]

The *dukun bayi*[16] confirmed the pregnancy definitively once the menstrual period had skipped three months. A sacrifical meal, *selamatan*, was laid on, and this was repeated in the seventh month.[17] After the meal the pregnant woman was smeared by the *dukun bayi* with seven salves on seven body parts. After she washed herself, the water barrel was smashed to encourage a birth that would be as easy as the breaking of the barrel. The future father also had to conduct ritual acts. To promote an easy birth, he had to cut off the band wrapped around his wife's middle. Once the woman was dressed for the festivities, she returned to the guests for an auction, the proceeds of which were intended for the future child. All of this took place under the watchful eye of the *dukun bayi*. Often the day would conclude with a wayang show with a suitable subject such as the birth of a mythological hero.[18]

Once the first labour pains began, several female family members and neighbours would gather along with the *dukun bayi*. The *dukun* massaged the pregnant woman and placed a band loosely around the woman's

14 Van Lieburg 1987:12.

15 Mayer (1894:114-60) provides a detailed description of this. His description of a delivery and the associated aftercare broadly agrees with that by J. Idsinga, CMS inspector. See his letter to the head of the Medical Service of 11-11-1876 no. 28, *Historisch overzicht* 1898:appendix B; unless specified otherwise, they are the sources in this section.

16 Traditional midwives were called *dukun bayi* or *dukun beranak* on Java, *paraji* among the Sundanese and *dukun rembliq* among the Madurese. For the sake of simplicity, I shall just use *dukun bayi*. Today we use the term TBA (traditional birth attendant).

17 Sometimes a *selamatan* was already held in the second month; sometimes a *selamatan* was organised every month after the first *selamatan*.

18 The 7-month ceremony is still important, Heringa 2007:24-54.

stomach. To ward off evil spirits, her belly and limbs were rubbed with herbs; garlic and other things were hung in the entrance of the house while the *dukun* recited prayers. The husband was present at the birth and had to support his wife's head and back. If the husband was hindered, he would be represented at the bedside by a rice pestle or a bolster dressed like a doll. The family members and neighbours were tasked with making sure that the woman in labour did not scream. It was considered disgraceful to announce the product of something created in silence by screaming to the world. During the labour pains the *dukun* provided care by exerting pressure, sometimes by pulling the abdominal band tighter, so that the child would not shoot backwards; when the *dukun* became tired, the bystanders would help out. The amniotic fluid was considered the older brother or sister of the child, and the placenta the younger. The *dukun* was only allowed to cut the umbilical cord with a bamboo knife after the placenta had been expelled, and then she bathed the baby. Once the navel had been treated and covered with an umbilical bandage, the child was wrapped in swaddling clothes. Only then did the *dukun bayi* turn her attention to the mother: she was bathed, rubbed with herbs, and her abdomen tightly girded. Finally, the *dukun bayi* dealt with the placenta: it was washed, wrapped in leaves and buried or thrown in the river along with objects to bring the baby good fortune, for example, salt so that he would never lack anything. The mother applied creams and drank concoctions for 40 days after the birth to restore the blood circulation. During that period her abdomen was massaged by the *dukun bayi* to restore it to its original shape. On the 40th day after the birth, the woman was bathed and examined by the *dukun bayi* and after dressing was ceremoniously returned to her husband by the *dukun*, after which she received the agreed compensation for her work. At certain moments, such as immediately after birth, when the umbilical cord falls off, for the name giving ceremony, and at the appearance of the first tooth, a *selamatan* is held, to which the *dukun bayi* is always invited. She is also the one who places the child with his feet on the ground for the first time, and that is also accompanied by a *selamatan*. The *dukun bayi* often remained to help out for 40 days, not only caring for the mother and child but also doing household chores.[19]

Of course, complications sometimes occurred during deliveries. If the start of labour was delayed, the *dukun bayi* gave the woman in

[19] After about 40 days the uterus has returned to its original shape and the young mother can carry out heavy work again. It is thus a logical cut-off point.

labour an astringent drink that was thought to promote the childbirth process or tried through manipulating the abdomen to push the child out. She would also order all doors and windows to be opened, in the hope that the cervix would follow suit.[20] With massage she could reposition the baby correctly. If the delivery was very difficult, more *dukun* would be called in, including sometimes a male one with magical powers (Verdoorn 1941:75). If the delivery of the placenta was delayed, nothing would be done for the mother or child, even though both had to lie for hours, sometimes days, in a pool of blood. The *dukun* would try with massage or pulling on the umbilical cord to draw the placenta out. The fear was that it would remain in the womb if the umbilical cord was cut immediately after delivery. The newborn would not then be complete without its brother or sister (Kleiweg de Zwaan 1910:34). Only if the mother died during childbirth would the umbilical cord be cut earlier. Then it was assumed that the placenta, still in the mother's body, did not want to have anything to do with the baby.

POSITION OF THE DUKUN BAYI

Modern scholars can give us an impression of the position of the *dukun bayi* in society. In the beginning of the 1970s, a large-scale survey was conducted in Serpong, a district in West Java.[21] The district had about 55,500 inhabitants at that time spread over 15 villages. Almost all deliveries, 96%, were supervised by 77 *dukun bayi*, who grew crops as well as supervised deliveries. They were a bit better off than average and were respected by the population. Their specialist knowledge had often been passed down to them by their mother or grandmother and gained through experience; only two *dukun bayi* could read. They were all married when they became *dukun bayi*, had already had children and were somewhat older. Most of them started working from the *selamatan* in the seventh month of pregnancy. Three-quarters of them used a bamboo knife when cutting the umbilical cord. For complications like retention of the placenta, the majority knew only to recite magical formulas; one-third would apply massage. Almost all of them gave postnatal care, like

[20] The exact same procedure was employed in the Netherlands at the beginning of the 20th century, Marland 1995:72.

[21] The Inter-university family planning research and training scheme.

massaging the mother and prescribing medicinal herbs.[22] This situation in Serpong did not differ from what Eric A. Stein (2007:58-9) encountered at the beginning of the twenty-first century in the rural countryside of Banyumas (Central Java), where the population respected the *dukun bayi* for her knowledge of the authentic midwifery (*asli*). In both cases the *dukun bayi* seems strongly embedded in society, and her working method has hardly been affected by Western medicine. The practice of the *dukun bayi* as described by modern anthropologists seems unchanged compared with the nineteenth-century sources. Their position in society probably did not change much either. They could not have lived from their compensation, usually 'one, two, at most three guilders, sometimes a few farthings, or … a chicken, a sarong, a rug or just … a cup of coffee, a *sirih* plum, one or a half *gantang* [about 1.5 kilo] rice';[23] they received 16 cents per delivery in the Priangan in 1867 (*Historisch overzicht* 1898:28).

DECISION-MAKING

To replace the *dukun bayi*, W. Bosch wanted to train native women as midwives. He proposed establishing a midwifery clinic in Jakarta or Semarang for 20 students.[24] The situation in the Netherlands, where the first midwives' school was established in 1861, could hardly have formed an inspiration. Within a month of submitting his proposal, Bosch heard that the government would permit an experiment if the costs were kept to a minimum. They also asked for more details.[25] After Bosch supplied the requested information, including a budget of *f* 18,000 for the building, the government started formulating objections. While the utility of the training programme was acknowledged, the costs were too high, and there was doubt about whether one clinic would be enough. The government produced another option: the training of soldiers' wives and concubines in all major garrisons.[26] Bosch rejected this plan; he felt that only a small number of health officers were competent to provide this training, and thus a training programme in every major garrison would

[22] Lubis, Borkent-Niehof and Pudji Astuti 1973.
[23] Report for 1861, *Historisch overzicht* 1898:18; one *gantang* cost 50 cents.
[24] Archief Schoute Batavia, October 1847.
[25] Letter from general-secretary 5-11-1847 no. 2491, *Historisch overzicht* 1898:6.
[26] Cabinet letter 2-5-1848 no. 106, *Historisch overzicht* 1898:7.

not be feasible. Most health officers were trained in the Rijkskweekschool voor Militaire Geneeskundigen in Utrecht, where midwifery was not included in the curriculum. Apart from that, Bosch felt that the soldiers' wives and concubines were not sufficiently educated to follow a theoretical programme. In addition, each garrison would have to have expensive, educational equipment such as a manikin.[27] It would thus be an expensive option (*Historisch overzicht* 1898:8).

Bosch's counterarguments appeared to convince the government because he was commissioned during his next inspection tour of Java to talk about the future midwives' school and ascertain whether the municipal midwives in Jakarta, Semarang and Surabaya would be able to provide the training programme (*Historisch overzicht* 1898:8). Apparently, he did not encounter any insurmountable objections during his tour, and the next step was initiated: in January 1850 a request for advice was sent to the Council of the Indies. It involved a trial, and only one training programme was mentioned instead of the original three.[28] The Council's resolution was positive, and in June 1850 the governor-general gave his approval.[29] In contrast to when the *dokter djawa* school was being established, the governor-general could now apparently take a decision without the government in The Hague, perhaps because it was a trial. The budget restrictions in effect for the Netherlands Indies, which had led to a similar proposal from Godefroy in 1839 being rejected, no longer formed an obstacle.

THE SCHOOL

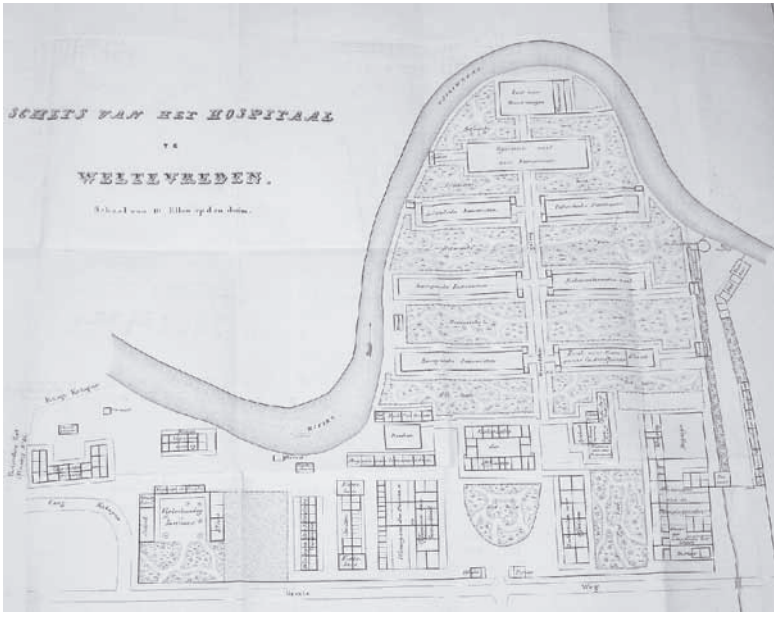
The school for native midwives was located on the grounds of the military hospital in Jakarta – as was the *dokter djawa* school. Both training programmes were free, and the girls received an allowance of *f* 12 per month for food and clothing, the same amount as a servant's wage (*Historisch overzicht* 1898:7). After the school and the maternity ward were built, the programme started in October 1851.[30]

27 This is a model of the female body from the waist downwards with which students could practise assisting deliveries using a doll; it is still being used for training programmes today.

28 Archief Schoute Batavia.

29 *KV* 1850:39: 'The Resolution of 12-6-1850 specified that trials shall be done for the training of native women in practical midwifery'.

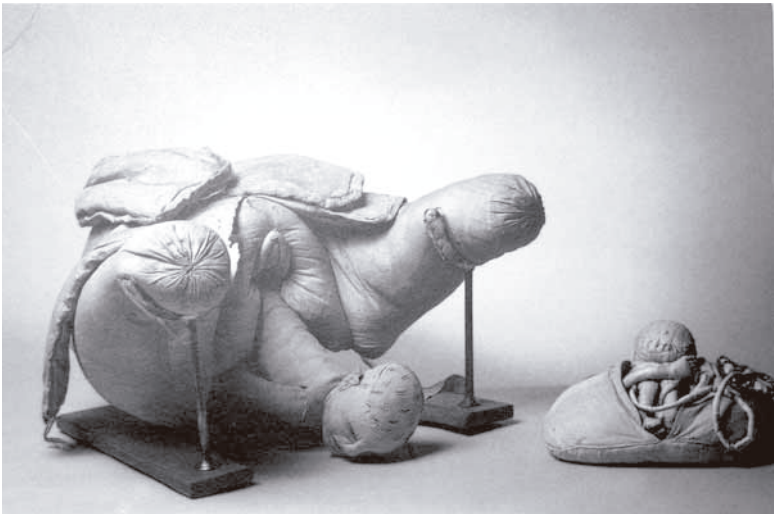
30 In the letter of 2-8-1852 no. 612, Bosch reported on the results of the past 10 months, *Historisch overzicht* 1898:10. This allows us to estimate that the school began in October 1851.



The school for midwives is on the left in a rather secluded part of the grounds of the military hospital. Just to the right are the dormitories for the students of the *dokter djawa* school; their theoretical courses were given in the school located even farther to the right. (*GTNI* 1856:119.)

CURRICULUM

The curriculum consisted of occupational subjects: 'describing the human skeleton in general and the pelvis in particular; the principles of human physiology; the various dimensions of the female pelvis; the theory of pregnancy and the ovum; the natural and unnatural positions of the fetus and various practical rules' (Wassink 1859b:658). Strangely enough, in 1850 it was assumed that the students could read, write and do arithmetic, as part of the teaching was theoretical. Bosch and the government should have known better. The educational possibilities were limited, especially for native girls. It was actually amazing that one of the 20 students of the first cohort had learned to read and write at least the Javanese alphabet (*Historisch overzicht* 1898:10). Up until the school for midwives closed in 1875, the vast majority of students had not



A manikin. This is a model from the 18th century, but it originates from France, like the midwives' school model. (postcard from the author's collection)

even undergone elementary education upon admission (*Historisch overzicht* 1898:14). The training programme was intended to last 1½ years;[31] but in practice most students took longer (2½ to 3 years) (*Historisch overzicht* 1898:14) because they had to learn to read and write and do arithmetic first (Wassink 1859b:657).

For the *dokter djawa* school, the language of instruction was repeatedly discussed. The teachers were assumed to have such a limited command of Malay that they could not use it for teaching. Just before the midwives' school was opened, a municipal midwife in Jakarta confirmed that she did not speak enough Malay to give lessons in it (*Historisch overzicht* 1898:8-9). After the school was established, however, nothing more was heard on this topic.

Along with theory the students had practical lessons. They used a manikin and the *Atlas d'obstétrique* by Moreau, which were both ordered from Paris.[32] The *Atlas* by Moreau was considered the most beautiful in the nineteenth century.[33] Clearly, no budget restrictions were imposed on

31 According to *Historisch overzicht* 1898:10, one year.
32 Archief Schoute Batavia.
33 www.vialibri.net.

these teaching materials, although the government usually held tight to the pursestrings. Practical experience was gained by assisting women in childbirth under supervision.

PREGNANT WOMEN

An essential ingredient for the practical training was the availability of pregnant women. In its first response to Bosch's proposal in 1847, the government doubted whether, 'given the population's attachment to its own house and tools [probably this referred to the *dukun bayi*], twelve pregnant women at regular intervals would be willing to allow themselves to be cared for in the institution'.[34] Bosch thought that this objection would disappear when soldiers' wives and concubines were considered in the group of pregnant women (*Historisch overzicht* 1898:7).

In the Netherlands Indies army, the soldiers lived with their families in the barracks. They slept in large halls, where every soldier and his wife/concubine could screen their 'sleeping table' with cloths. The children lay under the sleeping table (Bosma and Raben 2008:245). Women and children were thus part of barracks life. There was no designated place for giving birth, and, according to Bosch, deliveries in the barracks led to 'the most shocking scenes', and mother and child got no rest. He expected that soldiers' wives and concubines would be happy to make use of the maternity clinic because they would be treated decently there, and be fed, cleaned and allowed to rest. He also proposed giving each woman in labour a bonus of ten guilders after she recovered. This bonus would only be needed in the beginning because he estimated there would always be pregnant women (*Historisch overzicht* 1898:7). He would be proved right in this. The bonus could already be halved by the end of 1853 (*Historisch overzicht* 1898:11). According to the head of the Medical Service, G. Wassink (1859b:664), often more pregnant women applied than could be accommodated. Although he was rather overly positive about the school for midwives, this time he appears not to have been exaggerating. In 1872, when the school had just 7 students, 46 pregnant women were admitted. In total, between 1852 and 1872, 1128 women in childbirth were nursed in the clinic. For the total of 142 students

34 Letter from the general-secretary 5-11-1847 no. 2491, *Historisch overzicht* 1898:6.

in the same period, that seems an ample number (*Historisch overzicht* 1898:13-4).

SCHOOL MANAGEMENT

During the entire existence of the school, almost 25 years, it was run by H.J. Zembsch-de Klemp.[35] That she was listed in the sources as a teacher and not the director may be due to the often disparaging attitude of European physicians towards midwives.[36] This can be heard in the words of the Commission charged in 1906 with the reorganisation of the colonial Medical Service: 'How is it otherwise possible that someone had the idea of instructing a midwife with a European diploma to teach native midwives, even to let them carry out obstetric methods'. The Commission suspected that the explanation lay in the fact that the health officers did not have any training in midwifery (Bijker et al. 1908:89).

Zembsch's work in the school was a supplementary job in addition to her position as second municipal midwife in Jakarta. She received a monthly allowance of *f* 100 for it, the same as her usual salary,[37] thus doubling her income. In comparison, the municipal midwives in the Netherlands were far worse off: their annual salary was roughly the same as a month's salary of their colleagues in Jakarta.[38] It was even more amazing that in 1853, Zembsch's allowance was raised to the enormous sum of 150 guilders per month (Wassink 1859b:657, 659).

Zembsch had the task of preparing the students for their future work situation although she had no experience assisting at the deliveries of indigenous women. Her colleague, the first municipal midwife, A.J. Redeker-Pulle, assisted at 1410 deliveries in 20 years (1835-1855), including 1342 Europeans, 55 Chinese and 13 Natives (Bosch 1854b:328). Assuming that Zembsch's practice as second municipal midwife had a similar composition, she would also have rarely seen native patients. It is thus debatable whether she could prepare the students for a delivery

35 Her husband, Johannes Paulus Zembsch, was a physician in Batavia. He died in 1850 on the way back to the Netherlands where he intended to recuperate from his illness. His widow returned to the Indies after an interval as a municipal midwife. She died in Jakarta in 1887. Her two children had no offspring, CBG, The Hague.

36 Appointment by disposition GG 14-4-1852 no. V, named in the letter from the director of Education, Religion and Industry, W.A. Henny, to GG 25-8-1875 no. 9086, Archief Schoute Batavia 1875.

37 Resolution 12-6-1850 no. 3, *KV* 1850:39.

38 In the same period municipal midwives in the Netherlands earned 100 to 150 guilders per year, Van der Borg 1992:115.

in a village with all the associated customs. But perhaps this objection is irrelevant because the students were expected to follow a Western training programme.

STUDENTS

The school was planned for a maximum of 20 students (Borgers 1941:121). After the proposal for the training programme had been approved, it was crucial to have enough suitably qualified students. Little is known about the recruitment method.[39] The local administrators were meant to intercede to recruit students from different residencies, especially from the principal towns of the districts. Once they graduated, they were expected to return home (*Historisch overzicht* 1898:6). It was thought that the graduates would be able to build up their own practice better in the district capitals than in a village. The regional government would often have turned for help with the recruitment to the native administrators, who had their own opinions about education for women and would certainly not have considered it suitable for women from their own social class, the *priyayi*. Also for women from the lower social classes, a long training programme far from home, organised by the government, was problematic. In addition, it was known that in Islamic circles, certainly in orthodox ones, there were serious objections to girls attending school.[40] For example, no students from the residency of Banyuwangi were ever sent to the midwives' course because the regent was 'pure Mohammedan' and anti-European (*Historisch overzicht* 1898:22).

From the beginning attempts were made in different districts to attract students, who would return to their region of origin after the training programme. In contrast to the *dokter djawa* school, the midwives' training programme was never intended specifically for Javanese women and girls. Given the enormous distances, it is remarkable that students from the Outer Islands applied: one of the ten students who graduated in 1854 came from Padang (Sumatra's West Coast) and returned there.[41]

39 The residents had agreed that for the school for surveyors in Cirebon, each regency would delegate one student, *Algemeen verslag onderwijs* 1855:188-9. It is likely that a similar agreement was made regarding the recruitment for the school for midwives.

40 In 1900 a survey commissioned by Director of Education, Religion and Industry Abendanon still revealed that the indigenous society in general wanted to have absolutely nothing to do with education for girls, De Kat Angelino 1931b:251.

41 Wassink 1856:799; *KV* 1854:60.

In 1857 all ten new students came from the Outer Islands (Wassink 1859b:660). Of the 142 students who attended the school, 39 came from the Outer Islands, about 27% (*Historisch overzicht* 1898:14).

Bosch had rejected the idea from the government to admit soldiers' wives and concubines to the training programme because they had too little development and refinement. Attracting better educated young women seemed to be impossible, however. Even Wassink, who strongly supported the midwives' school, reported that the students in general came from the lowest class of society (Wassink 1859b:663). The names of the students we know confirm this: simple names without titles, while many of the *dokter djawa* had titles such as *mas* or *raden*. For the Europeans it was expected that the students would come from the lowest class because this was the same situation in the Netherlands (Van der Borg 1992:135). Perhaps that is why the resident of Tegal wanted to enrol 15 prostitutes. Bosch made it clear that this type of student was not wanted, as they would sabotage the aim of the training programme (*Historisch overzicht* 1898:9). A similar 'offer' came from the Priangan where the resident enrolled several *ronggeng* (*Historisch overzicht* 1898:10), dancers who were often prostitutes.[42] It is known that two graduates were *ronggeng*: one from Rembang and one from Banyumas.[43] There were no further reports about former *ronggeng* from the Priangan; probably they were not admitted to the training programme. And few students of (Indo-) European origin attended the school.[44]

MARITAL STATUS AND BEHAVIOUR

Married students were admitted, but their husbands were not permitted to stay overnight.[45] Even when in 1866 married women were recruited specifically, an express condition was that husbands and children would not reside in the school.[46] Usually, the husband stayed at home; it was relatively common in those days for one of the partners to be absent

42 According to De Braconier 1919:512 they were highly respected by the public; according to *Dansen* 1917:571 they did not lead a virtuous life.

43 Respectively, *Historisch overzicht* 1898:24 and Archief Schoute Banjoemas, 1858.

44 An orphan from Sumatra's West Coast, the daughter of a retired sergeant in Cirebon, *Historisch overzicht* 1898:13. Also, midwives with names like Teuntje van Bommel, Johanna Robberts and Wilhelmina Mausbach must have been of (Indo-)European origin.

45 In the first cohort there were definitely two married candidates, namely from Banyumas and from Semarang; the latter had a child, *Historisch overzicht* 1898:10.

46 Circular 30-1-1866 no. 167, *Historisch overzicht* 1898:14 note 1, 30-1.

for long periods because of work. The husband could try to get a job in Jakarta, for example as an orderly in the military hospital.[47] Sometimes the woman was married to a student of the *dokter djawa* school. This could probably be arranged in the recruitment process: if one of the partners was interested in the training programme in Jakarta, the other would be approached for the other course. At the *dokter djawa* school the students were only allowed to be married if their spouse was a student in the midwives' training programme (Lauw 1987:82). Only once was an explicit reference made to a Sumatran trainee midwife who was married to a future *dokter djawa*.[48]

The students of the *dokter djawa* school had to present proof of good conduct upon admission (Lauw 1987:82). It is not known whether the midwives' school had a similar criterion. Certainly the conduct of the students and graduates was a matter of great concern. Perhaps it was assumed that people from the lower classes were generally badly behaved, but people could also have been concerned because they were young women. The authorities would have been aware that the midwives' behaviour – and thus the students' – was an essential component of the success of the project. Within the indigenous community, the graduates had to earn a certain status, even if only to be able to compete with the greatly respected *dukun bayi*.

The first report about the training programme in 1852 was already full of praise for the students' behaviour: 'They do not take advantage of the opportunity to go out; they live very modestly and demurely, which is ascribed partly to the strict supervision and partly to the edifying effect of education and regular employment' (*Historisch overzicht* 1898:11). Perhaps this remark was meant as a signal for the regional administrators that they could recruit decent young women without hesitation and that they did not have to present prostitutes and dancing girls. A few years later, in 1859, the words of Head of the Medical Service Wassink (1859b: 663-4) expressed a certain admiration for the students:

> Regarding the students' moral behaviour, one can be astonished at how quickly they adjust to conditions so different from those they used to

47 *Historisch overzicht* 1898:10; the husband of Sariëm, student in 1864-67, was a servant to G. Wassink, *Historisch overzicht* 1898:44.

48 Letter from J. van Swieten 24-12-1863, in: NA, Koloniën, 1850-1900, 2.10.02, inv. no. 1433, Vb. 27-1-1864 no. 18.

> live in, given their age, previous social status, education, etc. Although there are opportunities to do so, they rarely go out; it seems that these women, aware of what they were and what they can become, choose a modest, home-loving life above so-called entertainment. […]. This reporter ascribes the model behaviour of the students to the realisation that they have of their previous status and of what they could achieve with diligence and attentiveness, to appropriate supervision, to steady employment requiring reflection and examination and laying the foundation of order, which in turn engenders pride.

The quotations reveal that behaviour was associated with morality and that a double standard governed the sexual behaviour of women and men. Although it is not known whether there was much to say about the behaviour (sexual or otherwise) of the students, the head of the Medical Service, A.E. Waszklewicz, expressly requested in 1866 recruiting married women to avoid immoral behaviour. He was a strong supporter of the midwives' training programme, but apparently their behaviour was a point of concern for him. Of the 142 students between 1851 and 1872, 14 were sent away for misconduct. Together with 20 students who were sent away because they were unsuitable, the percentage of dismissed students was 24% (*Historisch overzicht*_1898:14). At the *dokter djawa* school 72 of the 256 students from the start until February 1873 were dismissed because of unsuitability or misconduct,[49] or 28%. The loss because of misconduct and/or unsuitability was about the same for both training programmes, but because no distinction was made between misconduct and unsuitability in the *dokter djawa* school, it cannot be determined whether misconduct was noted more often among the young women than among the young men.

EARLY PRAISE

Just like with the *dokter djawa* school, those directly involved in the midwives' training programme quickly presented a positive picture. Perhaps it was meant to stimulate recruitment or from fear that the government might abolish the funding. Examples of early commendation can be

49 In total there were 299 students, of whom 43 were still at the school, Lauw 1987:84.

found in the report from mid-July 1852 by Wassink, who as commanding health officer 1st class was charged with supervising the school.[50] He reported that several illiterate students from the first cohort had learned to multiply figures with twelve numbers and zeroes in just ten months (*Historisch overzicht* 1898:10). This is almost brilliant, but the question is what use would it have been to a prospective midwife? He probably wanted to stress that lack of prior education did not present a problem. In October 1853 Bosch attended the final examination of the students from the first cohort, after which he reported to the governor-general that both the theoretical and the practical knowledge completely met the expectations and achieved the aim. 'These women have demonstrated using the manikin that they are capable of providing obstetric assistance, in both natural and difficult deliveries – if necessary by applying forceps'.[51] Bosch was generous with his praise not only of the students' achievements but also of the training programme; he wrote with some exaggeration, 'Already and despite the fact that the native midwives must sometimes fight against the prejudice of the population, it can certainly be assumed that many a mother and child were spared, who without the assistance of these midwives would have been the victims of the rough empiricism of the so-called *dukun*'.[52] The new graduates had attended deliveries during their study and under supervision, but it is going too far to state that they saved many lives by doing so. The editorial board of the *Geneeskundig Tijdschrift voor Nederlandsch-Indië* was also full of praise for the school in 1853, two years after its establishment: it 'already promises the most splendid results for the future'.[53]

Bosch's successor Wassink (1859b:663) continued in the same vein: the students learned to read and write in Malay and do algebraic calculations in six to ten months,[54] and they progressed well in theoretical midwifery. This also sounds too good to be true. In his reports Wassink (1856:799) effusively praised the students and the training programme: 'The midwifery institute, which is already posting good results after such

50 In the articles of association in June 1850, Bosch was commissioned to report on the examination procedure on 1-7-1852. In practice, Wassink was the one who prepared the report that Bosch published on 2-8-1852 no. 612, *Historisch overzicht* 1898:9, 10.

51 Letter from Bosch to GG 21-10-1853 no. 877, Secret Archive of the general-secretary, Archief Schoute Batavia.

52 Letter from Bosch to GG 21-10-1853 no. 877, Secret Archive of the general-secretary, Archief Schoute Batavia.

53 Addition from the editorial board at the end of Harloff 1853:389.

54 This refers to equations like 4:2 = 8:x.

a short existence, also excels in its cleanliness and good order and the rapid progress of its students in the subject of midwifery'. A year later Wassink (1857:1120-1) was no less enthusiastic:

> It is worth remarking that both the school for native doctors and that for midwives continue to produce favourable results. Already now, after such a short existence of the training programme for native midwives, the usefulness of the graduates is proclaimed loudly from various sources, and there is no doubt that as the suitability and expertise of these women develop and become better known, the prejudice prevalent among so many so-called indigenous children [referring to potential students] and among the indigenous population in particular against European midwifery assistance will be increasingly counterbalanced, and science triumphs here, too, someday over the rough empiricism, if that is what one can call the exercise of midwifery by *dukun*, who each year put a number of mothers and children in their graves.

Later he repeated his message, but now in his function as chief editor of the *Geneeskundig Tijdschrift voor Nederlandsch-Indië*:

> As I have repeatedly remarked, the conviction that many lives are lost due to the lack of expert assistance during childbirth led to the establishment of an institution in the main hospital in Jakarta in which native women are trained in midwifery at government expense. It is thus only fair to expect that in several years' time the results of the training will not only fulfil the aim but will also yield sufficient interest to amply compensate the capital invested by the government in the establishment and maintenance of that institution.[55]

Others also hoped that the graduates would ultimately replace the incompetent *dukun*. For example, E.W.A. Ludeking (1856:548), health officer in Padang (Sumatra's West Coast), complained in 1856:

> It is widely known that indigenous women, during childbirth, prefer indigenous assistance to that from a European physician. That is why we can only praise the existence of a midwifery institute for native women

55 Note from Wassink to Greiner 1860:661.

> in Jakarta as most fortunate and appropriate, to prevent cases like the ones reported here. The midwives trained there, born to the population and armed as far as possible with the knowledge of obstetrical science, remove the listed objections entirely.

Similar comments were made ten years later by A.K. Arntzenius (1867:99-118), health officer in Buru (Moluccas), after he was called to a delivery far too late. Even a soldier like A.W.P. Weitzel (1860:34-5), who visited the Indies only briefly,[56] had high expectations of the school for midwives: it was destined 'to spread the richest blessings over Java someday'. There was a great need to bring to an end 'the sometimes gruesome actions […] that are often taken on Java during the delivery of women in childbirth because of superstition or ignorance'. In brief, the necessity for Western-trained midwives was expressed in all types of ways.

THE GRADUATES AND THEIR TASKS, 1855-1865

There were extensive discussions about whether the *dokter djawa* should become a vaccinator or an assistant-doctor, as we saw in chapter 4. But from the beginning, everyone assumed that the graduates of the midwives' school would work as midwives among the population to replace the incompetent *dukun bayi*. In the discussion about the position of the *dokter djawa*, their term of address came up. It is not clear how the certified midwives were addressed. Official documents refer consistently to 'native midwives', but this is not a proper term of address. In a report from 1856, a certified midwife in Pasuruan was called '*orang beranak*' (Wassink 1859a:111), perhaps analogous to *dukun beranak*, a synonym for *dukun bayi*. The term of address for two sucessfully employed graduates is known: Sariëm was called '*doctor prampoean*' (*Historisch overzicht* 1898:44), literally female doctor, Nji Astijem called herself 'government midwife',[57] probably to stress her link with and support from the government. Elsewhere we find similar designations, such as *'orang Gouwernement'* for midwives who received an allowance from the government.[58] There was evidently no official name for the native midwives.

[56] From 1853-60 he was minister of War and of Colonies, Van 't Veer 1985:15.
[57] *Historisch overzicht* 1898:appendix A.
[58] *Historisch overzicht* 1898:18 (circa 1861).

Just like the *dokter djawa* the midwives were expected to return to their region of origin to start work after graduating. Both groups were supervised by the physician responsible for the Civil Medical Service (*Ind. Stb.* 1856 no. 70). There was a subtle difference: while the physicians were meant to promote the further development of the *dokter djawa*, this was not considered necessary for the midwives. Almost all graduates found work in their region of origin. Teuntje van Bommel, Johanna Robberts, Wilhelmina Mausbach and Sima were exceptions, all graduates in 1856 (Wassink 1859b:659). Two of them found posts working for the indigenous rulers of Surakarta and Yogyakarta; the other two departed for Probolinggo and Besuki because no Western midwifery assistance was available in those residencies, and attempts to recruit students had not been successful (Wassink 1859b:660). The latter argument is surprising because there were many residencies that had not yet successfully managed to recruit students; after all, the school had only been open for a few years.

We have some insight into the work of a few graduates. A midwife in Pasuruan assisted at 19 deliveries in three months (Wassink 1859a:111), equivalent to 76 deliveries per year. Two midwives in the regency of Garut (Priangan) and the two European municipal midwives in Jakarta assisted at 111 and 133 deliveries, respectively, in one year,[59] which is equivalent to 55 to 66 deliveries per midwife per year. Alida Koerong, a native midwife in Jakarta, assisted at 39 deliveries in the first year after graduating, 1858 (Schoute 1936:335).[60] In comparison: *dukun bayi* assisted at an average of 20 deliveries per year (Verdoorn 1941:120).

RESISTANCE

The graduates were thus meant to build up their practice among the indigenous population. Cognescenti such as Head of the Medical Service Wassink (1859b:662) understood all too well that this would not be simple: 'This is not the place to go into detail of how difficult it is to sweep aside the public prejudices rooted in superstition, ignorance and customs'. Several residents indicated in their annual reports that the

59 Respectively, resident of Priangan 1867-68, *Historisch overzicht* 1898:28; Wassink 1855:366.

60 In 1910 Dutch midwives assisted at 110 deliveries per year on average, a much higher average than in neighbouring countries, Marland 1995:67-87.

population had little faith in the Western-trained native midwives.[61] The resistance was partly associated with that against Western medicine in general.[62] The aversion was primarily due to the population's unwillingness to let go of old customs, an implicit referral to the *adat* (*Historisch overzicht* 1898:26).

In the comparison between a *dukun bayi* and a certified midwife, the population preferred the former for several reasons: her age, methods, behaviour (moral) and – literally and figuratively – proximity. For example, the midwife in Banyumas was not in favour because of 'the Javanese superstition that a midwife must have grey hair to be skilful'.[63] This argument was often cited.[64] *Dukun bayi* derived their reputation from their usually advanced age, which meant that not only had they assisted at many deliveries, they were mothers who had had several children and knew the intimate details of childbirth.[65] The population was also adverse to the European delivery method (called expectative midwifery);[66] the certified midwives at standard deliveries did not interfere but let nature take its course, which worried the population.[67]

Furthermore, the alleged immoral conduct of the certified midwives produced resistance. Examples of bad behaviour included living together with a European, like a midwife in Bangka (*Historisch overzicht* 1898:23). During one of his inspection tours, the Civil Medical Service inspector, F.J. Cornelissen, heard from Sariëm, a certified midwife in Purworejo (Bagelen), that of the 56 graduates only herself and three others were married, the others had 'mostly chosen to leave the straight and narrow and were living with Chinese and Europeans' (*Historisch overzicht* 1898:44). Such a testimony from an insider was probably taken very seriously; the inspector repeated it in a report years later. It is curious, though, that Sariëm in Purworejo could be so well informed about the situation of her colleagues spread throughout the archipelago. The resident of the Priangan could understand how such relationships came to be. 'It is not

61 Archief Schoute Bagelen 1855, Kedoe 1856, Banjoemas 1862.

62 In Western Kalimantan and on Banka, ca. 1860, *Historisch overzicht* 1898:22, 23.

63 Archief Schoute Banjoemas 1858.

64 Residents of several districts in 1867-68, *Historisch overzicht* 1898:26; M. Th. Reiche, head of the Medical Service, in his recommendation 28-6-1873 no. 994, *Historisch overzicht* 1898:34.

65 Letter from CMS inspector Idsinga to head of the Medical Service 11-11-1876 no. 28, *Historisch overzicht* 1898:appendix B; Wassink 1859b:662. TBAs are generally old women (Lefeber 1994:5), just like midwives in the Netherlands between 1650 and 1865 (Van der Borg 1992:141).

66 Archief Schoute Preanger 1859.

67 Letter from head of the Medical Service 15-1-1867 no. 90, *Historisch overzicht* 1898:21.

surprising as these women generally became more civilised than the local women after a three-year stay in Jakarta, and thus appeared more attractive'.[68] While it was known that some native midwives did live together with European men, it is going too far to state, as did the physician C.L. van der Burg (1882:374), that this was a general phenomenon that explained the closure of the school: '[T]he clinic was closed because the civilizing influence it had on the students seemed to make them more suitable as concubines for Europeans than as midwives'. Also in the investigation of the reduced welfare, it was confirmed that the midwives, 'as they had learned to read and write and become more civilised',[69] found great favour with the Europeans with whom they ultimately lived.

Through their training programme and the long stay in Jakarta, the graduates not only became more attractive as concubines, they also became alienated from their fellow countrymen. The population in the residency of Banten did not harbour resentment against them so much as dread them and their superior refinement (*Historisch overzicht* 1898:26). And thus they preferred the familiar *dukun* from the village over the 'lady' from Jakarta. Along with the social distance, the physical distance in combination with the poor infrastructure often formed another reason for the natives not to turn first to the certified midwives. They usually lived in the main town, far from the rural countryside, and the population did not have money for transport. In individual cases the midwives had to take carriages at their own expense when they were called to women in labour who lived far away or in the middle of the night.[70]

If the population asked the certified midwives for assistance, this usually meant complications. For example, the midwife in the regency of Garut (Priangan) successfully delivered triplets in 1863.[71] A complicated delivery formed a risk factor, certainly for a recently certified midwife with little experience. The native midwives in Semarang were not able to establish a practice because they were 'unlucky' to have difficult deliveries at the start of their career.[72] By using the word 'unlucky' the resident indicated – probably informed by the local physician – that he in principle thought the midwives were skilled.

68 Archief Schoute Preanger 1860.
69 *Onderzoek mindere welvaart* 1914:86 note 1.
70 Resident of Semarang, *Historisch overzicht* 1898:15.
71 AV for 1863, Archief Schoute Preanger.
72 Archief Schoute Semarang.

SMALL SUCCESSES

There were positive reports here and there, like one from Surabaya in 1859, where the native midwife Sima had skilfully helped many women, both in town and outside it.[73] The municipal physician in Pekalongan, G.H. Muller, was also satisfied. Three certified midwives worked in his residency: two of them had already 'accomplished different, very difficult, unnatural deliveries of European as well as native and Chinese women with the best results' (Wassink 1859b:513). The resident of Jakarta was enthusiastic about Alida Koerong, the first certified native midwife in his town: 'This woman's behaviour is exemplary, and her skill is highly praised' (Schoute 1936:335).

Most of the certified midwives primarily had European clients,[74] which had not been the intention of the training programme. Nevertheless, some, such as Priangan resident C. van der Moore, were pleased with the native midwives assisting at deliveries of European women: '[H]er position here can already be called a blessing, as not all appointed civil physicians are trained in midwifery'.[75]

COMPETITION FROM THE DUKUN BAYI

Given all the resistance against the certified midwives, the population remained faithful to the *dukun bayi*. The physician in Banyumas confirmed this in 1862: 'The certified native midwives have almost nothing to do; the *dukun* have a lot'.[76] The question is how did the administrators and the midwives cope with the almost unassailable position of the *dukun bayi* on the medical market. Sometimes a certified midwife matched her fee to that of a *dukun bayi*. This matching was a local initiative rather than a government guideline, as it did not want to set a fixed fee for the midwives or for the *dokter djawa*. A midwife in Yogyakarta took a strategic approach to the competition with the *dukun bayi*. She had overcome the population's objection to 'doing nothing' during a delivery with great tact by tolerating a few *adat* customs and 'prejudices' as long as they did

73 Archief Schoute Soerabaja; in 1856 Sima had been working in Besuki, not her region of origin, but apparently not for long because now she was evidently working in Surabaya.

74 Archief Schoute Bagelen 1855; Archief Schoute Preanger 1856; Archief Schoute Banjoemas 1869.

75 AV for 1863 by resident Van der Moore; Archief Schoute Preanger.

76 Archief Schoute Banjoemas 1862.

not harm the mother and child (*Historisch overzicht* 1898:26). Another way to assist the native midwives in the competition with the *dukun bayi* was unconditional support from an administrator. In Purwakarta this succeeded: when the native heads saw that the resident was squarely behind the midwife, they called her for assistance, after which the population followed suit (*Historisch overzicht* 1898:appendix A). Others also hoped that a positive attitude of the heads would convince the lower classes.[77] This did not always work, as evidenced in Yogyakarta and Surakarta where both sultans employed a certified midwife for the women at court, while the common population did not use them (*Historisch overzicht* 1898:25). The hope of some administrators that the resistance would fade over time proved to be baseless in most residencies: in Banten the population began 'slowly to show more trust in European medicine, but as far as midwifery was concerned, they remained loyal to their tradition'.[78] In the residency of Bagelen the population still distrusted the certified midwives after ten years.[79]

SUPPORT

MATERIAL SUPPORT

Immediately after the first ten students had passed their exams, Bosch asked the government to give the graduates an allowance of 8 guilders per month; this was less than the 12 guilders they had received during their training programme. He guessed that, certainly in the beginning, it would be difficult to establish a sufficiently large practice among the population: 'At the start before they have earned any trust, they will probably be denied any form of subsistence, which will cause them, by dint of necessity, to go down paths or use means that could damage the intended goal'.[80] By damaging paths or means, Bosch was probably referring to prostitution. He definitely did not assume that a midwife would be economically dependent on a husband. The request for an allowance was submitted to the Council of the Indies, which objected for fear of creat-

77 The *patih* in Banyuwangi and the resident of Tegal, *Historisch overzicht* 1898:22-3.
78 AV for 1870, Archief Schoute Bantam.
79 Archief Schoute Bagelen 1855, 1865.
80 Letter 2-11-1853 no. 907, *Historisch overzicht* 1898:15.

ing a new, permanent cost item in the budget. In addition, the Council considered it excessive, 'If the government, after having been so generous as to give these women and the population the benefit of a good education, is now burdened for an indefinite period with supporting the students who, left to their own devices, would probably be quicker at putting their training into practice'. And if an allowance was granted, the regional administrators would have to demonstrate the absolute necessity for it.[81] At the end of 1853, submission of a well-supported request for a temporary allowance was permitted.[82]

A few years later, in 1856, it was decided to force the regional administrators to request an allowance for the *dokter djawa* if he could not find a post as vaccinator or provide for himself by exercising his profession.[83] Head of the Medical Service Wassink wanted to arrange the same obligation on behalf of the midwives and submitted an appropriate request to the government. According to him the midwifery course deserved a similar level of encouragement, and the midwives certainly needed the allowance just as much as the *dokter djawa*.[84] This request went through the usual channels. The Council of the Indies called the proposal excessive and dubious in its advice. Unlike Wassink, the Council felt that the *dokter djawa* and the midwives should not be treated equally. The *dokter djawa* had to be retained for the Medical Service as they could be appointed as vaccinator whenever there was a vacancy and thus there was a reason for not abandoning them to their fate while waiting for a vacancy to arise. Regarding the midwives, the Council persisted in its opinion that the state had already done enough by providing them with a training programme. If the regional administrators could demonstrate the absolute necessity for an allowance, then it could be granted in that instance (*Historisch overzicht* 1898:16). In other words, the Council did not recognise any need to change the existing situation. The government adopted the advice of the Council of the Indies, and the prevailing regulations remained in force.[85]

But this continuous requesting of an allowance was a tedious chore

81 Advice from Council of the Indies 20-12-1853 no. XIV, *Historisch overzicht* 1898:15.

82 Government letter to Bosch 31-12-1853 no. 2636, *Historisch overzicht* 1898:15. In the letter of the adjunct-secretary of the government of 27-1-1856 no. 152a, the head of the Medical Service was authorised to do so, *Bijblad* 23.

83 Resolution 11-5-1856 no. 3, *Ind. Stb.* 1856 no. 70.

84 Letter 28-6-1856 no. 661, *Historisch overzicht* 1898:16.

85 Resolution 5-11-1856 no. 6, *Bijblad* 43.

for a resident. In 1861 the resident of Cirebon proposed transforming the temporary allowances of the midwives in his region into allowances for an indefinite period. Wassink supported this, but the proposal did not make it past the director of Finances: 'By making the allowances more fixed in nature, one removes the stimulus that causes the woman in question to strive to improve her practice'. The government agreed with this advice.[86] Wassink did not drop the matter, however. He submitted several similar requests from residents to give the allowance a more permanent character, accompanied by a passionate plea. He reminded the government of the motive for establishing the school: better midwifery assistance for the population would reduce the number of lives lost. Although the trained midwives were suited for their task, it was very difficult to build up a practice among the natives because they held tight to ancestral customs. Until this situation changed, it was necessary to support the graduates 'because otherwise they, lacking any means of subsistence, will be forced to resort to other means, far from their profession or morally repugnant. If one wants the benefit, then the necessary funds must be provided to achieve that goal' (*Historisch overzicht* 1898:17). Just like his predecessor Bosch, Wassink seemed to assume that the midwives would not be supported by a husband and that prostitution would tempt them if the allowance were to disappear.

Again, advice was requested form the director of Finances. He drew a comparison between the midwives and the vaccinators, who obtained a salary from the government, for which they were obliged to tour around to inoculate the population; the people were encouraged by the authorities to allow themselves to be vaccinated for free. Therefore, the midwives should also get a fixed salary in return for the obligation to travel around helping pregnant women for free, while the population would be encouraged to use this assistance. He was against providing an allowance without an obligation. From Wassink's response, it appears he felt that the director of Finances should stick to his own business: he remarked subtly that he must have forgotten that deliveries could not be planned. Wassink again explained the necessity for an allowance and pointed out the risk that they would otherwise have to support themselves by immoral means. He did take on certain elements from the director's proposal, like the obligation to provide free midwifery assistance and to involve the

[86] Letter of first government secretary to head of the Medical Service 14-11-1861 no. 2853, *Historisch overzicht* 1898:16-7.

regional administrators in encouraging the population to make use of it. This was ultimately the decision taken.[87] It gave the allowance a more permanent and less informal character: efforts were required from both the midwives and the regional administration.

In terms of the budget, the allowance was still not properly arranged. At the end of 1867, the Indies government proposed henceforth to include a separate item in the budget for the midwives' allowance, and one for the *dokter djawa*. Earlier – in chapter 4 – we saw that Minister of Colonies J.J. Hasselman only agreed to these allowances so as not to delay the entire matter.[88] His critical attitude was sufficient reason for the director of Education, Religion and Industry, L.J.W. de Waal, to reflect on both training programmes, as he had recently assumed the responsibility for them.

IMMATERIAL SUPPORT

From the beginning, successive heads of the Medical Service realised that along with the material allowances, immaterial assistance was also necessary if the project was to succeed. Starting immediately with the first cohort of graduates, the administrators were stimulated to encourage the population to call on the graduates (*Historisch overzicht* 1898:11). In 1862 the regional administrators were charged with urging the population insistently (*Bijblad* 1209). According to the later Civil Medical Service inspector, A.G. Vorderman, only the resident in Purwakarta (Krawang) paid any attention to this.[89] He announced that a midwife trained and paid by the government was coming to live in Purwakarta three days before her arrival and that any woman experiencing a difficult labour was obliged to call in her assistance.[90]

ADJUSTMENTS

The first adjustment took place just after the training programme had started. Because apparently not one student in the first cohort could

87 Resolution 26-6-1862 no. 18, *Bijblad* 1209.

88 Dispatch 6-12-1867, lett. I, no. 25/1490, *Historisch overzicht* 1898:19.

89 As he told H.B. van Buuren, Van Buuren 1898a:31.

90 Letter from Vorderman to head of the Medical Service 4-11-1876, no. 37, *Historisch overzicht* 1898:appendix A. Vorderman worked in Purwakarta beginning in 1-10-1876, thus he had probably heard about this measure.

read, write or do arithmetic, it was necessary to include elementary education in the curriculum. Although in mid-1852 no student had yet graduated, the training programme – thanks to the positive first report – gained a structural character.[91] Furthermore, the number of students was raised from 20 to 24[92] as a result of the high intake of 16-17 new students in 1854 (*Historisch overzicht* 1898:13), which exceeded the maximum limit of 20.

OBSTETRIC INSTRUMENTS

A more radical adjustment was the granting of a case containing obstetric instruments and some medicines to the certified midwives in 1863.[93] The use of instruments by midwives was a hotly disputed topic in the Dutch medical world, and many Europeans in the Indies, definitely the physicians, would have been aware of this debate. According to the Dutch law of 1818, midwives were not permitted to use instruments. They were only allowed to assist deliveries 'which took place naturally or could be brought to a successful conclusion by applying hands' (Schoon 1995:100). Although it was formally forbidden, in practice many midwives successfully applied forceps, especially if they were the only medical professional around. Student-midwives at the clinical school in Amsterdam were even trained in the use of obstetric instruments before being sent out to the Netherlands Indies (Schoon 1995:102). This was against the rules but sensible from a practical point of view because midwives in the Indies often worked in isolation.

The ban appears not to have been upheld in the Indies to any extent, either for the European or the native midwives. In the report on her activities in the period 1835-1855, the first municipal midwife in Jakarta Redeker-Pulle (1855:744-8) openly stated her regular use of forceps. The 1853 report from the head of the Medical Service, W. Bosch, to the governor-general on the final examination results of the first cohort of midwives, states: 'These women have proved on a manikin that they are capable of administering assistance, during natural and complicated de-

91 As a result of the report from the head of the Medical Service for the first 10 months (Letter 2-8-1852 no. 612), the king authorised including a fixed item in the budget for the midwives' training programme, *Historisch overzicht* 898:10-1.

92 In the 1851 budget, there were 20 students, see Resolution 2-6-1851 no. 23, Wassink 1859b:657; the increase was arranged in GB 26-6-1854 no. 5; Wassink 1856:979; *Historisch overzicht* 1898:13.

93 GB 15-11-1863 no. 10, *Bijblad* 1498.

liveries – if necessary, through the use of forceps'.[94] Probably no one was disturbed by this because these midwives were meant to work among the native population to whom the government's regulations did not apply.

Although the students learned to use forceps during their training programme, they did not have access to this instrument after graduation. In 1861 the resident of Manado requested obstetric instruments for three native midwives in his residency; they were provided.[95] Subsequently, the head of the Medical Service, G. Wassink, submitted a request on behalf of all certified midwives.[96] The government wondered whether the population's resistance would increase if the midwives were given instruments.[97] In his reply, Wassink wavered between the justified fear of the government about the deterrent effect of the instruments, on the one hand, and their absolute necessity in practice, on the other:

> After all, it is not standard at every delivery, whether natural or not, to arm themselves immediately with instruments and display them to the women in childbirth as terrifying tools. No, the instruments are only used as is proper when there is an overwhelmingly urgent need for them; the cases of this nature, although luckily rare, are then such that the sufferers, far from showing aversion to instrumental assistance, are willing to pay that price for relief from their often severe suffering. (*Historisch overzicht* 1898:12)

And, he continued, even if instruments are needed for only one in a hundred deliveries, then their lack in that one delivery would be felt bitterly and could not be compensated (*Historisch overzicht* 1898:12). The midwives had to show their added value at difficult deliveries and thus needed to be suitably equipped.

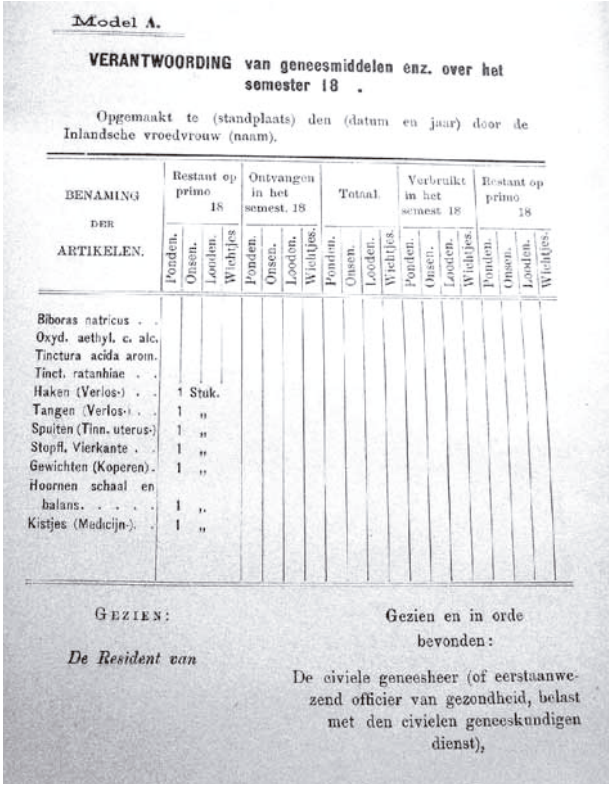
Apparently, Wassink's argument was convincing and the recommendations positive because in 1863 general regulations were published that gave all midwives who had an allowance from the government and those in the service of the rulers of Surakarta and Yogyakarta, a case

94 Letter from Bosch to GG 21-10-1853 no. 877, Archief Schoute Batavia.

95 Letter from the resident of Manado 1-11-1861 no. 1347, *Bijblad* 1209.

96 According to *Historisch overzicht* 1898:12 in letter of 23-2-1862 no. 328. This was forwarded in the Indies dispatch of July 1863 no. 549/1 to The Hague, *Bijblad* 1498.

97 Letter from first general-secretary 25-3-1863 no. 744, *Historisch overzicht* 1898:12.



Model A.

VERANTWOORDING van geneesmiddelen enz. over het semester 18 .

Opgemaakt te (standplaats) den (datum en jaar) door de Inlandsche vroedvrouw (naam).

BENAMING DER ARTIKELEN.	Restant op primo 18				Ontvangen in het semest. 18				Totaal				Verbruikt in het semest. 18				Restant op primo 18			
	Ponden.	Onsen.	Looden.	Wichtjes.	Ponden.	Onsen.	Looden.	Wichtjes.	Ponden.	Onsen.	Looden.	Wichtjes.	Ponden.	Onsen.	Looden.	Wichtjes.	Ponden.	Onsen.	Looden.	Wichtjes.
Biboras natricus . .																				
Oxyd. aethyl. c. alc.																				
Tinctura acida arom.																				
Tinct. ratanhiae . .																				
Haken (Verlos-) . .	1 Stuk.																			
Tangen (Verlos-) . .	1 „																			
Spuiten (Tinn. uterus-)	1 „																			
Stopfl. Vierkante . .	1 „																			
Gewichten (Koperen).	1 „																			
Hoornen schaal en balans.	1 „																			
Kistjes (Medicijn-). .	1 „																			

GEZIEN:

De Resident van

Gezien en in orde bevonden:

De civiele geneesheer (of eerstaanwezend officier van gezondheid, belast met den civielen geneeskundigen dienst),

The form that the midwives had to complete (De Freytag 1899)

with some instruments and medicines.[98] The few midwives who supported themselves with their own practice did not get cases, though. The contents of the case consisted of an obstetric hook, forceps, uterine syringe and several medicines.[99] The midwives had to report on their use every half-year to the head of the regional administration (*Bijblad* 1498). Completing the form would not have been easy for women with not even one year of elementary education.

Implicitly, the government introduced a certain division of tasks be-

98 GB 15-11-1863 no. 10, *Bijblad* 1498. According to *KV* 1863:89 the midwives in Pekalongan, Rembang, Bengkulu and Banka had already received instruments as exceptional cases.

99 Medicines like *biboras natricus c aqua, tinctura rosanhiae, oxydum aethylicum c alcohole (aeth.sulp.alc), spiritus vini gallici, tinctura acida aromatica, Bijblad* 1498.

tween the *dukun bayi* and the native midwives by providing the medicine chest: the former assisted at normal deliveries; the second group was called in when there were complications.

ADDITIONAL CIRCULAR

In the meantime, the number of new applicants had decreased enormously. The lowest point was reached in 1865 with only two applicants. It was obvious to everyone that this situation could not continue; something had to be done. At the start of January 1866, the head of the Medical Service, A.E. Waszklewicz, sent a circular to the regional administrators, calling on them to recruit suitable students in their region.[100] The circular achieved its purpose because in that year the registration was higher than ever: 26 new students from 9 residencies.[101] However, Waszklewicz was not granted permission for a repeat of this successful action by the director of Education, Religion and Industry;[102] thus, it did not result in a change of policy.

It seems that H.J. Zembsch-de Klemp was not asked for her opinion about any of the adjustments to the midwives' training programme. Her view may not have been of importance to European physicians given their disdain for midwives.

THE GRADUATES AND THEIR TASKS, 1865-1875

The global picture of the position of the native midwives on the medical market was the same in the period 1865-1875 as it was ten years before. The population still called rarely on the certified midwives,[103] and then only for complicated deliveries.[104] The majority of the midwives could not support themselves and still received the same allowance, about 10 guilders per month, in exchange for assisting at deliveries free of charge.

[100] Circular 30-1-1866 no. 167, *Historisch overzicht* 1898:14 note 1, 30.

[101] *KV* 1866: 98.

[102] Request from head of the Medical Service to director of Education, Religion and Industry 29-10-1868 no. 1931. In his letter 26-2-1869 no. 1644, the director of Education, Religion and Industry stated that he first wanted to wait for the outcome of his circular 4-8-1868 no. 4833 (see below), *Historisch overzicht* 1898:31.

[103] Archief Schoute Cheribon 1868; Archief Schoute Pasoeroean 1870.

[104] AV for 1867, Archief Schoute Preanger; resident of Pekalongan, reply to circulars from 1867-68, *Historisch overzicht* 1898:26.

Nevertheless, the residents regularly reported that the population considered the midwife too expensive in comparison with the *dukun bayi*.[105] Apparently, the midwives sometimes took payment, from 60 cents to one guilder per delivery.[106]

Most of the residents were convinced that the natives' resistance would fade over time. A few noted that the population's limited experience with the midwives could also be ascribed to the small number of graduates (*Historisch overzicht* 1898:26), making them not very familiar. Only when this changed would propaganda be successful.[107] The regent of Gatuh (Cirebon) stated that he could not urge the population to employ the services of the native midwives as long as there was only one midwife for the 115,000 people in his regency (*Historisch overzicht* 1898:27).

CLIENTELE

The midwives primarily worked for Europeans and at times for Chinese women and prominent natives.[108] Europeans living outside the towns often had no European physician or midwife nearby, and thus they had to rely on a native midwife.[109] Sometimes they even brought one from another residency if there wasn't one in the region.[110] For a European delivery the midwife was engaged long before the due date, certainly at remote plantations, and remained there for some time as a dry nurse. All that time, often 1-2 months, they could not assist at any other deliveries.[111] It is understandable that they liked working for Europeans when we see what the compensation was: 50 to 100 guilders per delivery plus full board and lodgings and gifts in the form of clothing (*Historisch overzicht* 1898:28). The resident of Cirebon laid a direct link between the high payment earned from Europeans and the limited efforts of the native midwives to win the trust of the natives.[112] Because they earned so much from the Europeans, some even raised their fees for the indigenous

105 Residents of Preanger and Batavia, *Historisch overzicht* 1898:28.
106 Resident of Semarang, 1867-68, *Historisch overzicht* 1898:27.
107 Residents of Banten, Rembang, Semarang, Yogyakarta, Priangan, Bagelen, regent of Gatuh (Cirebon), *controleur* in Cirebon, Survey 1867-68, *Historisch overzicht* 1898:26-8.
108 List of postings and locations of 54 graduates in 1867, *Historisch Overzicht* 1898:24-5.
109 AV for 1867 by resident C. van der Moore, Archief Schoute Preanger.
110 Europeans on the island of Belitung and in Madiun, *Historisch overzicht* 1898:22-3.
111 Archief Schoute Cheribon 1868; *controleur* of Cirebon, 1867-68, *Historisch overzicht* 1898:27.
112 Archief Schoute Cheribon 1868.

women, which did not make them more attractive.[113] In other words, the certified midwives preferred a lucrative practice among Europeans to assisting at free deliveries in the village for *f* 10 per month. And vice versa, the population preferred to call on the assistance of the *dukun* who were from their own villages and were satisfied with small fees.

The 50 midwives in 1873-1876 assisted at a total of 2640 deliveries in the 4-year period (*Historisch overzicht* 1898:46), or an average of 660 per year. This corresponds to just over 13 deliveries per year per midwife.

NJI ASTIJEM AND SARIËM

More is known about two midwives in particular, Nji Astijem and Sariëm. Three days before Nji Astijem started work in Purwakarta (Krawang), the resident had announced her arrival with cymbals and impressed on the population the need to call on her assistance in case of complications. With this support, she was able to establish a practice first among the native heads, then she rapidly won the trust of the common people. With her rough manners, this would have not been possible otherwise, according to the local civil physician A.G. Vorderman. He considered her skilled because she had successfully delivered a breech birth. Later, when the obligation imposed by the resident to call on her assistance for potentially complicated deliveries was not upheld so strictly, Nji Astijem maintained her authority over the *dukun*. When only the *dukun* was called for a complication, the husband had to report this to her. 'If he failed to do so, then she could pin the blame for this failure squarely on him, emphasising the fact that she was the government midwife'.[114] She said herself that in 'the insignificant place', Purwakarta, she had more to do than all her colleagues in the entire Indies put together (Van Buuren 1898a:31-2). With the resident's support and her own expertise, this midwife established a strong position on the medical market. When the resident's support flagged, she could continue on her own.

We originally encountered Sariëm as the woman who complained to the inspector about the behaviour of her fellow students and col-

[113] A midwife in Tegal, *Historisch overzicht* 1898:23. The residents of Batavia, Banyumas and Pekalongan called the increased payment a problem for the population, Survey 1867-68, *Historisch overzicht* 1898:26,28.

[114] Letter from Vorderman to the head of the Medical Service 4-11-1876 no. 37, *Historisch overzicht* 1898:appendix A.

leagues. From 1867 to 1877 she worked in Kutoarjo, then she moved to Purworejo, 10 km eastwards (both places in Bagelen). From Kutoarjo she even assisted at deliveries in villages that lay 30 to 40 km away. She was clearly highly trusted because in one of the villages a colleague of hers, Sampan, had little to do (*Historisch overzicht* 1898:45). The notes from her training programme, which she had saved, were lost in a fire ten years after graduation (*Historisch overzicht* 1898:44). The fact that she reported this suggests that she still consulted them occasionally. She assisted at 30 deliveries per year among the population and another 25 with European and Chinese women. The natives paid her a fee between 50 cents and one guilder, the Europeans and Chinese *f* 10 to *f* 15 per delivery and *f* 25 if she stayed on as a dry nurse for another two weeks. In addition, she had her fixed allowance of *f* 10 per month. Poor women whom she would have helped free of charge rarely asked for her assistance (*Historisch overzicht* 1898:44). It is striking that Sariëm kept her allowance although she earned sufficient income from her private practice.

PREPARATION FOR CLOSURE

In 1867 the organisational structure of the Civil Medical Service changed; the final responsibility, including for the midwives' training programme, was given to the director of Education, Religion and Industry. Soon after L.J.W. de Waal became the director, he received a critical dispatch from Minister of Colonies J.J. Hasselman about the allowance for the graduates. The Indies government wanted proof of its utility and necessity. De Waal took advantage of this request to evaluate the training programme thoroughly. First of all, he asked the head of the Medical Service, A.E. Waszklewicz, for his opinion. Waszklewicz repeated once more that improvement of midwifery assistance for the population was the motive for establishing the school. He explained again that the population did not feel a need for better help, which made it difficult to establish a practice and that the graduates therefore had to depend on an allowance. Even with that prospect, it was not possible to attract enough students. To prevent the project from failing, the government had to maintain the allowance.[115] De Waal seems to have disliked

[115] Advice from head of the Medical Service 29-2-1868 no. 388, *Historisch overzicht* 1898:20.

Waszklewicz's response because he sent a survey in August 1868 to the regional administrators to ask whether it would be better to terminate the midwives' training programme. They also had to provide information about the behaviour and services of the midwives in their region.[116] In February 1869 De Waal forwarded the answers from the residents to Waszklewicz. In an accompanying letter he drew a conclusion: 'Your Honour will note that in most of the residencies the midwives are not trusted by the population, and are therefore of little use. This has already been declared on many other occasions.'[117] He continued that under these conditions and given the limited number of students, the training programme would have to be terminated. But before he formulated a proposal to the government, he asked Waszklewicz for his opinion (*Historisch overzicht* 1898:31-2). De Waal's 'conclusion' did not reflect the residents' answers. An official report from the department 30 years later spoke about De Waal's conclusions being 'incompletely and not entirely correctly represented' (*Historisch overzicht* 1898:22 note 1), a nice way of suggesting that the facts were distorted.

Region	Number	Behaviour	Suitable	Native Practice	European Practice	Chinese Practice	Advice
Jakarta, incl Bogor	1	good	good	small	yes	small	+
Banten	1	good	for normal delivery	yes	yes		+
Priangan	6	little to report, moderately virtuous	adequate	only for complications	yes		+
Cirebon	6	good	yes	small	yes		-
Pekalongan	3	generally very good	generally very good	small	yes	yes	+
Semarang	5	good	yes	yes	yes		+
Bagelen	4	good	for normal deliveries	yes	small		+
Banyumas	2	good	yes		yes		-
Surakarta	1	good	yes	elite	yes	yes	+
Yogyakarta	2	good	yes	elite			+
Kediri	3	good	yes	small	yes		+

[116] Circular 4-8-1868 no. 4833, *Historisch overzicht* 1898:22, 31.
[117] Letter 26-2-1869 no. 1644, *Historisch overzicht* 1898:31.

Region	Number	Behaviour	Suitable	Native Practice	European Practice	Chinese Practice	Advice
Jepara	1	good	yes	elite; in village only complications	yes		+
Rembang	3	2 good; 1 ex-dancer immoral	2 suitable; 1 not trusted		2 yes		+
Surabya	1	good	yes		as dry nurse		+
Pasuruan	1	good	yes		yes		+
Ambon	2	very good	1 very suitable, 1 low self-confidence		yes		-
Manado	7	good	yes	yes			+
Makasser	1	good	results not great	small	yes		+
Timor	1	not virtuous	no	no practice			-
Sumatra's West Coast	2	good	yes	no			-
Palembang	1	irreproachable	yes	small	yes		+
Total	54						16 +; 5-

Table 5.1 Opinion of administrators on the behaviour and the suitability of the graduates, their practice among the different population groups and the recommendation about continuing (+) or terminating (-) the training programme[118]

In the survey 16 of the 21 administrators were in favour of continuing the training programme and 5 against. The manner in which De Waal rearranged the outcomes to his satisfaction revealed that his request for a response from Waszklewicz was no more than a formality. This was confirmed by the fact that De Waal ordered Waszklewicz not to accept any new students on 1 May 1869 – even before his advice had arrived – in anticipation of a decision on the future of the school.[119] In reality, the freeze on recruitment made little difference because there were hardly any applications, but it was clear which way the wind was blowing.

Two days later Waszklewicz's advice appeared and – as expected – flatly contradicted De Waal's 'conclusion'. While he did have to acknowl-

[118] Answers to circulars from the first general-secretary 12-4-1867 no. 760 and from the director of Education, Religion and Industry 4-8-1868 no. 4833, *Historisch overzicht* 1898:24.

[119] Letter 1-5-1869 no. 3458, *Historisch overzicht* 1898:32.

edge that the midwives were not highly respected in most regions, the majority of the regional administrators wanted to retain the training programme. On the basis of the results, he hoped that the future would be brighter if the administrators could be urged to recruit enough students. It would be difficult to re-establish such an institute after it had closed, and thus he asked permission to repeat the successful action from 1866 and to appeal directly to the regional administrators to recruit suitable students.[120] De Waal did not permit this. He knew that Waszklewicz's days as head of the Medical Service were limited, and he let the matter drop until his successor, M. Th. Reiche, was appointed in April 1870.

When Reiche had been in post for one and a half years, he was ordered to consider closing the midwives' training programme.[121] A pause of one and a half years seems long because De Waal's mind was already made up. The interval was used for intensive discussion between the two men about the future not only of the school for midwives but also of the *dokter djawa* school and the veterinarian school.[122] After six months Reiche produced his recommendation: the results of the training programme did not meet the original aims. The certified midwives were rarely called in by the population, and they preferred working for European women in childbirth because of the generous payment and good treatment. Reiche did not consider it necessary to continue the training programme for this group, as more and more European midwives were interested in coming to the Indies to work.[123] The school for midwives must be closed. Also, the buildings were needed for the expansion of the *dokter djawa* school.[124] Reiche fully understood that the original aim – improvement of the midwifery assistance for the population – had not been achieved. Therefore, he proposed a trial with the same manner of training as that for the European midwives in the Indies: a training on site supervised by a qualified obstetrician or midwife, which would halve the costs.[125]

120 Letter 3-5-1869 no. 839, *Historisch overzicht* 1898:32.

121 Letter 21-12-1872 no. 12010, *Historisch overzicht* 1898:30. The same letter contained the order to reconsider the *dokter djawa* training programme.

122 De Waal referred to numerous relevant verbal discussions, *Historisch overzicht* 1898:33.

123 It has already been noted that the payment in the Indies was generous compared with that in the Netherlands: a month's salary in the Indies was equivalent to about a year's salary in the Netherlands.

124 *Verslagen vrouwenarbeid* 1899:77. In this report, the MP H. van Kol stated that it was claimed that the school was closed because of unsatisfactory results, but that the real reason was that another school wanted to expand and needed the building housing the midwives' school for its expansion.

125 Advice 28-6-1873 no. 994, *Historisch overzicht* 1898:30 and 33-5 (this recommendation also applied to the *dokter djawa* school).

De Waal presented his recommendation on 2 October 1873 to Governor-General J. Loudon.[126] Just as he earlier distorted the results of the answers from the regional administrators to the question of whether the training programme should continue, he now manipulated the origin and the moral conduct of the students and the graduates.

> The majority of the students who attended the school are former dancing girls, as evident from the reports by the heads of regional administration, who even after graduating have continued to lead a highly immoral life, and thus naturally were not employed by the respectable classes of the population. Some of them, not able to resist the temptations of their previous employment, have abandoned being a midwife and become dancing girls again. (*Historisch overzicht* 1898:35-7)

He was being rather free with the answers from the regional administrators to the survey. But the story began to take on a life of its own. The missionary doctor H. Bervoets (1898:385) recounted years later that he heard old colonials talking about how the immoral behaviour of the students had contributed to the closure of the midwives' school. De Waal gave his predecessors another kick: 'How was it conceivable to imagine that young native women from a prominent family could be convinced to stay in the confines of the encampment, and be trained as a native midwife'.[127] None of his predecessors ever mentioned young women from respectable families, so again De Waal was taking great liberties with the truth to achieve his goal. The Council of the Indies agreed on the proposal to close it (*Historisch overzicht* 1898:22, 37), which was then presented in November 1873 to the administration in The Hague.[128] This was the response that Minister Hasselman had asked for in his dispatch almost six years earlier.[129]

Against all expectations, The Hague did not follow these very similar recommendations. The then minister of Colonies, I.D. Fransen van de Putte, thought there was insufficient reason to close the school. The results were definitely not satisfactory, but he did not expect any improve-

126 Advice 2-10-1873 no. 9651, *Historisch overzicht* 1898:35-7.
127 Advice 2-10-1873 no. 9651, *Historisch overzicht* 1898:35-7.
128 Indies letter of 5-11-1873 no. 1594a/25, *Historisch overzicht* 1898:30, 37.
129 Dispatch 6-12-1867, lett. I, no. 25/1490, *Historisch overzicht* 1898:19. According to the *Historisch overzicht* the 1875 reorganisation proposals actually formed the response to the dispatch.

ment from a training programme on site: 'I would therefore recommend that the governor-general reconsider this matter, as I am convinced that one should not close an already established institution so rashly, because the desired aims have not yet been achieved'. [130] At the last second the school had found an advocate in The Hague. The question is, why did the minister intervene? He had filled various posts in the Indies and undoubtedly had heard the stories about the *dukun*. Perhaps his political convictions were also involved; liberal politicians were the ones most interested in the welfare of the population. Unfortunately, he resigned soon afterwards, on 27 August 1874, and was succeeded by the moderate conservative, W. Baron van Goltstein van Oldenaller.

There were also changes in personnel in the Indies: in October 1873 Reiche was replaced as head of the Medical Service by B.E.J.H. Becking, and in May 1874 De Waal was replaced by C. Bosscher as director of Education, Religion and Industry. Bosscher, who was deliberating on the commission from The Hague to come up with ideas of how to counteract the decline of the school,[131] heard from Becking that there were only four students at the school, who would be taking their exams in one month's time. Because there would then be no more students, he wanted to dismiss the personnel.[132] Bosscher agreed to this, and in the governor-general's resolution of 2 September 1875 it was decided to close the school for now while waiting for reorganisation.[133]

DRAWING UP THE BALANCE

Between 1851 and 1872 a total of 142 students attended the training programme: 5 died, 14 were dismissed for misconduct and 20 because of unsuitability; 7 students were still at the school (*Historisch overzicht* 1898:14). The interim drop-out of 39 (37%) is comparable with the 42% in the *dokter djawa* school.[134] The capacity of the training programme –

[130] Report from minister of Colonies to the king 1-5-1874, lett. A[1], no. 31. The Indies government was informed of the denial to close the school through the dispatch from the minister of Colonies of 4-8-1874, lett. A[1], no. 30/1333, *Historisch overzicht* 1898:37-8.

[131] Resolution 19-9-1874 no. 13, *Historisch overzicht* 1898:38.

[132] Letter 23-7-1875 no. 2008, *Historisch overzicht* 1898:38.

[133] Letter from director of Education, Religion and Industry, W.A. Henny, to GG 25-8-1875 no. 9086, Archief Schoute Batavia; Resolution 2-9-1875 no. 28, *Historisch overzicht* 1898:38.

[134] The 7 students who were still at school are omitted from the calculation.

first 20, then from 1854, 24 – was definitely not reached because the total number of students would have been double (282 instead of 142).[135] Of the 96 women awarded a diploma, about 50 ran a practice in 1873,[136] a success rate of about 50%. If we look at the number of graduates, then we arrive at an average of 5 per year, and that is depressingly few. Ultimately, 60% of the students who embarked on the training programme actually did the work they were trained for. The result was thus comparable to that of the *dokter djawa* programme.[137] At its closure in 1875, the school had produced about 100 graduates.[138]

Table 5.1 shows that in 15 of the 21 regions where midwives worked from 1867-1868, their services primarily or exclusively benefitted European or Chinese women; in only two regions (Bagelen and Manado) did they largely serve the population, which was the original intention of the training programme. The result was also disappointing in this sense.

CONCLUDING REMARKS

Already before 1850 attempts had been made to train native women as midwives in a Western-oriented programme. In 1850 the time was finally ripe. Just like the *dokter djawa* school, the midwives' training programme was a novelty: the government had not previously felt responsible for the health of the population nor invested in educating native girls. But this sounds better than the reality because for a sum of *f* 10,000 per year – a pittance compared with the enormous sums contributed by the *Batig Slot* in those years – the government could placate the liberals in the Lower Chamber.

The school was plagued with setbacks from the start. None of the students could read or write, so elementary education had to be added to the curriculum. The number of applications was disappointing; probably many native heads felt a certain ambivalence about a training programme so far from home for young native women, and this translated

135 In 1851-54 a maximum of 1½ x 20=30 students could have been admitted; in the period 1854-75, this was ½ x 21 x 24 = 252 students.

136 *Historisch overzicht* 1898:14 specified 96 graduates in 1873. As at that moment there were still 7 students at school, the total number of graduates could very well have been the 102 given in *KV* 1876.

137 Among the midwives 50 of the 135 graduates were working, and 102 van de 256 *dokter djawa*.

138 *KV* 1876:122 states that the school produced 102 graduates. This would mean that of the 7 students still at school in 1872, 6 graduated successfully.

into an uninspired effort to recruit students. For a long time the training programme did receive unconditional support from the heads of the Medical Service, but not from their superiors.

The position of the graduates on the native part of the markets of medical goods and services was difficult; they rarely managed to win the population's trust. The indigenous women were very attached to their familiar *dukun bayi* with their knowledge of the customs observed during childbirth. The government tried to ease the midwives' entry into the medical market with an allowance if they offered their services for free, but still the population hardly called on them. The availability of obstetric instruments could have improved the position of the midwives on the medical market because they would have been better equipped for complications than were *dukun bayi*, but it could also have widened the gap with the population. In addition, difficult deliveries presented a risk, certainly for midwives at the start of their career: after an unsuccessful delivery, it would have been even harder to build up a practice. We cannot estimate whether the support of administrators, European and/or native, would have increased the public's trust. We know of only one example: Nji Astijem, who had the backing of the resident. With few exceptions, the native midwives did not manage to secure positions on the native markets of medical goods and services. This can be explained on the one hand by the strong position of the *dukun bayi*, and on the other by the attractive possibilities for the graduates on other midwifery markets, primarily involving European women. There they were paid much better, and their assistance was appreciated. The question is whether the government intended to employ the graduates as intermediaries to introduce Western midwifery to the population. It was indeed decided that the native midwives would return to their regions of origin, where they knew the language and customs, preconditions for roles as intermediaries. But they were not accepted by the population because of their youth and sometimes 'Western' behaviour, and thus they could not fulfil a role as intermediary.

It was proposed several times to improve the midwifery assistance among the population by training the *dukun bayi*. According to the health officer J.G.X. Broekmeyer (1856:41), this resulted in failure: 'Unsuccessful attempts have already been made to teach the *dukun* something, but it seems they are afraid to lose their good name by learning even a bit of European medicine'. That Broekmeyer had hit upon an

important point was illustrated by a *dukun* from the Priangan, the only one who ever attended the school for midwives. Very soon after completing her training programme, she took up her former profession again. [139] This illustrates that for a *dukun bayi*, it didn't make any sense to undergo training in Western midwifery; rather it was counterproductive.

The disappointing results were a reason for the top administration not to invest any more in the training programme or its graduates. The school was closed, and another approach was chosen in which the primary cause of the failure was glossed over, the lack of trust among the population in Western midwifery assistance.

[139] Archief Schoute Preanger 1854.

6

The STOVIA, *dokter djawa* 1875-1915

In 1875 the doctor training programme was reformed, and this had consequences for the position of the graduates on the medical market. In 1902 further revisions were introduced, leading to a change in the name of the school and of the graduates: School ter Opleiding van Inlandsche Geneeskundigen became the School tot Opleiding van Inlandsche Artsen (STOVIA, School for the Education of Native Doctors), and *dokter djawa* became *Inlandsche arts* (native doctor). Still later in 1913, when all races were admitted the title was changed into *Indische arts* (Indies doctor). In this chapter the term *dokter djawa* is often used for all alumni: the majority used this title, which was still in common use until well into the twentieth century (Lauw 1987:146).

TRAINING PROGRAMME

In 1875 the training programme was radically modified: its duration was extended from three to seven years, with two years of preparatory, fundamental education and five years of medical tuition, and the number of students was increased from 50 to 100. The language of instruction became Dutch.[1]

DUTCH

The introduction of Dutch instead of Malay as the language of instruction took a lot of effort; many methods were tried to teach the students the language. First, in 1878 the minimum age for admission was lowered

[1] *Reglement voor de school tot opleiding van Inlandsche geneeskundigen*, GB 24-11-1875 no. 7, *Ind. Stb.* 1875 no. 265.

because younger students would find it easier to learn Dutch.[2] When this produced insufficient results, the preparation phase was extended by a year in 1881 (*Ind. Stb*. 1881 no. 160). In 1885 the number of hours of Dutch in the preparation phase was increased (*KV* 1885:115); but this measure was cast aside after just one year because of poor results – clearly, they were rather impatient (*KV* 1887:108). Instead, the students were now required to speak Dutch outside school hours. Despite severe punishment for contravening the rule, little benefit was seen in practice (De Waart 1926a:16). The teachers produced a range of textbooks in Dutch, a handbook for pathology plus two sections on special pathology and therapy, almost 1500 pages in total, and that was just for one subject.[3] The level of the training programme was clearly being raised. The results were terrible in the first years after 1875: of the students admitted between 1876 and 1880, only 20% made it to the medical section (De Waart 1926a:19). Great efforts had to be made, therefore, to improve this situation.

In 1879 the regional administrators were expressly requested to recruit candidates who could read, write and speak Dutch.[4] When it became clear that they were also the better students, it was decided in 1889 only to admit students who had completed the middle class of the European primary school or attended one of the schools for native heads.[5] Only fee-paying native children were admitted to the European primary school,[6] which restricted this education to a small group. The intake to the doctor's school consequently decreased. To compensate for this, a maximum of eight boys aged 6-8 years were admitted free of charge to the European primary school in 1891 on the condition that they would be trained as a *dokter djawa*. At first, this condition applied

2 It was 14-18 years, *Reglement voor de school tot opleiding van Inlandsche geneeskundigen* art. 8, GB 24-11-1875 no. 7, *Ind. Stb*. 1875 no. 265. It became 12-14 years, GB 11-10-1878 no. 8, *Ind. Stb*. 1878 no. 262. In 1881 the minimum age for the preparatory phase was 12-16 years and for the medical section 16-20 years, *Ind. Stb*. 1881 no. 160. In 1902 the minimum age became 12-17 years, see art. 9a Regulation 1902 *Ind. Stb*. 1902 no. 443.

3 A handbook numbering 190 pages (De Freytag 1882) and a two-part textbook of 566 and 710 pages, respectively (Van der Elst 1883).

4 Circular director of Education, Religion and Industry 22 -8-1879 no. 10435, *Bijblad* 3436.

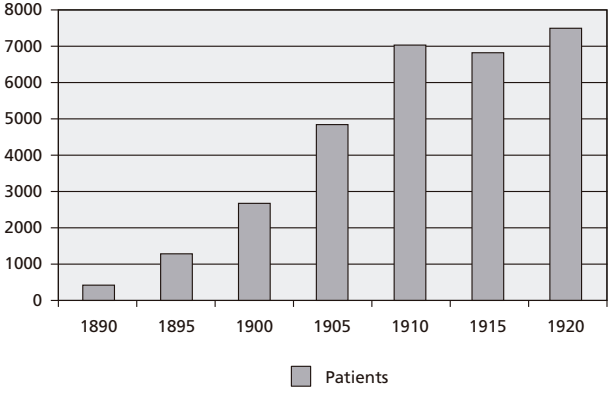
5 Circular director of Education, Religion and Industry to administrators in and outside Java and Madura 9-10-1889 no. 10305, *Bijblad* 4530.

6 *KV* 1890:98; exceptions were made for children of the teaching staff and for children of lower-ranking native soldiers from the residencies of Manado, Ambon, Ternate and Timor if they were Christian and located outside these residencies.

only for the Outer Islands (except the Moluccas);[7] in 1896 the trial was extended to Java and Madura.[8] Every boy who took advantage of this opportunity thus chose his career at the age of six.

MORE PRACTICE

To give the students more practice, outpatient clinics were opened, one for surgery and eye diseases in 1890 and one for internal diseases a year later (*KV* 1890:123; *KV* 1891:133).



Graph 6.1. Number of patients in the outpatient clinics of STOVIA, 1890-1920 (De Waart 1926b:365)

The graph shows that the number of patients in the outpatient clinics increased over time. The 95 students in the medical section around 1910 must have had their hands full with the 7000 patients. The director of the school realised that more personnel were needed, but given the great deficiency of native doctors, they decided not to ask for more assistant-teachers (*Jaarlijksch verslag STOVIA* 1903:8).

7 GB 28-8-1891 no. 11, *KV* 1892:97 note 2. The European primary school was attended here by even fewer natives than on Java and the Moluccas.

8 For a maximum of 30 students, GB 15-1-1896 no. 8, *KV* 1896:105. In 1900 this number was increased to a maximum of 80 (60 for Java and Madura, 20 for the Outer Islands), GB 26-6-1900 no. 10, *Bijblad* 5508. The editor of *Het Nieuws van den Dag voor Nederlandsch-Indië* (19-1-1901, p 3) brought this circular to the attention of its readers.

Outpatient eye clinic around 1920 (De Waart 1926b:238)

Furthermore, it was decided that poor natives and Chinese could stay 'a while for observation in the interests of educating the apprentices'; they were nursed free of charge in the 4th class of the military hospital in Jakarta.[9] At the beginning there were only two beds; in 1899 there were 10 (De Waart 1926a:20). A request to increase this number to 15 was denied in 1902.[10] To provide the students with sufficient practical experience, it was agreed that they would visit the municipal hospital twice a week (De Waart 1926a:37). In 1907 the number of free beds was increased to 40.[11]

FURTHER IMPROVEMENTS

Around 1900 the Dutch government changed its colonial policy. With the queen's speech of 1901, the so-called ethical policy made its entrance. For the first time the government declared that it felt responsible for the welfare and prosperity of the population. Part of this was a tentative form of health care for the natives, which led to an increase in the need

9 GB 20-12-1891 no. 19, *KV* 1892:122.

10 In Regulation 1902, art. 7.3, the number given is still 10, see *Ind. Stb*. 1902 no. 443; De Waart 1926a:37; denial in *Jaarlijksch verslag STOVIA* 1903:11.

11 GB 16-1-1907 no. 20, *KV* 1907:185.

The new school building (photo collection KITLV 35810)

for doctors (European and native). New investments were made in the *dokter djawa* training programme.[12] The preparatory phase was extended again, now to three years, and the medical section to six years.[13] The additional year was needed for the new subjects of obstetrics and forensic medicine (*KV* 1899:119). An admissions exam became mandatory, which could be taken at all European primary schools in the archipelago.[14] The *dokter djawa* school, now called STOVIA, was given its own director and a deputy director, both of whom were teachers. The maximum number of students was doubled from 100 to 200.[15] A new school building was built with a generous gift from three rich Deliplanters, friends of the minister of Colonies, J.T. Cremer, a former Deliplanter.[16]

[12] Director H.F. Roll formulated the improvements in 1898, Roll 1909:4. According to Van Niel 1960:51 stimulation for the improvement had come from the Deliplanters as the maintenance of the labour force (contract labourers mostly) was difficult; therefore, they placed great emphasis on the health of their employees. This claim can be neither supported nor refuted.

[13] The preparatory phase was shortened to 2 years again in 1890, De Waart 1926a:19.

[14] Art. 10 Regulation 1902, *Ind. Stb*. 1902 no. 443.

[15] GB 25-1-1900 no. 19, *KV* 1900:107.

[16] Originally, they provided *f* 100,000 for the construction of a midwives' school. When the Indies government indicated that improvement of general medical aid took priority and thus it preferred an expansion of the *dokter djawa* school, they increased the sum to *f* 170,000, Minister of Colonies Cremer when preparing the budget for Netherlands Indies for 1899, *Handelingen TK* 1898-89, meeting of 24-11-1898, 231.

Director H.F. Roll with a class of students
(photo collection KITLV 35813)

The introduction of obstetrics as a subject did not go smoothly. The new school building meant enough space was left in the military hospital for a maternity clinic, particularly for Ambonese soldiers' wives/concubines (De Waart 1926a:26-7). An Ambonese midwife was appointed to the school, who supervised the oldest students assisting at deliveries of soldiers' wives/concubines in the military hospital and of women in the kampong (Boerma 1926:224). This free supervision was not restricted to the delivery; the students continued to visit the new mother for nine days afterwards (Aboe Bakar 1926:329). In addition, the mothers received a bonus of *f* 7.50 for their willingness to allow the students to assist (Boerma 1926:224; Aboe Bakar 1926:332). Midwifery was the only subject for which the students entered the kampong. The new subject increased the graduates' competence, and they were given the title of *Inlandsche arts*. Older *dokter djawa* could supplement their training in obstetrics by taking that part of the exam, and then they were also awarded the title of *Inlandsche arts*.[17]

[17] Resolution Bogor 4-11-1902 no. 30, *Bijblad* 5823. An identical resolution was taken in Jakarta on 24-11-1903 no. 6, *Bijblad* 5936; *KV* 1904:213.

A full-sized replica of photo on page 168 was built as a diorama and can be viewed in the former school building, now a museum (photo J.H. Peters)

STUDENTS

The prospective student had to provide proof of good conduct, demonstrate that he had been vaccinated against smallpox and was not married. Exceptions to the last rule were only made for those who could provide for their wives outside the school.[18]

CLOTHING

The students' clothing revealed which part of the archipelago they came from. For example, Javanese students wore a traditional head covering, *kain* (wrap), black jersey open jacket with a stiff collar and black tie.

Outside the school grounds all of the students wore numbered caps with the symbol of Aesculapius's staff, and in the last three years of the course, a golden chin strap as well (Goeteng Taroenadibrata 1926:281). Leaving the grounds without a head covering was punished.[19] Some students were proud of their 'cap with the insignia in the form of a yellow snake wound around a flowering vine' (Pramoedya Ananta Toer 1988:32); others detested it because it made them recognisable everywhere they went. The clothing of the students of OSVIA, the school for

[18] Regulation 1899 art. 8, De Freytag 1899:53.

[19] The fine was 50 cents according to Goeteng Taroenadibrata (1926:281). Two days of confinement according to Samallo (1926:290).

Anatomical lesson. In the photo it is evident that the students' clothing varied according to their regions of origin and that they were barefoot. (photo collection KIT 10002345)

native officials, was identical to that of STOVIA.[20] This was probably a deliberate strategy by the government: by forcing the students to wear native clothing, they would not become alienated from the local population. Raden Mas Tirto Adhie Soerjo experienced the obligation to wear the traditional Javanese dress without shoes as humiliating.[21]

[20] As seen in the photo in Van den Doel 1996:169.

[21] He did not finish the school, but became a journalist, Pramoedya Ananta Toer 1995. According to Van Niel (1984:55) this was more injurious because at the European primary school (since 1889 the required preparatory education for STOVIA), they were allowed to wear European clothing. In the memoirs of Margono Djojohadikusumo (1970:18) this was not the case. Until 1908 native soldiers – except Ambonese and Menadonese – went barefoot, Willems 1997:66. In 1939 A. de Waart, then chair of the medical faculty, in a meeting organised by a student society, glossed over the earlier obligation that the students went barefoot, Wertheim and Wertheim-Gijse Weenink 1991:167.

THE GRADUATES AND THEIR WORKING CONDITIONS

The government was following a clear line by investing in the training programme – 'everything' was aimed at producing more and better trained *dokter djawa*; but in terms of the working conditions, the policy was much less obvious.

SALARY

In 1875 the starting salary was increased from *f* 30 to *f* 50 per month with four raises of *f* 10 at 5-year intervals of faithful service and devotion to duty.[22] The maximum monthly salary after 20 years of service amounted to *f* 90. This new salary was much lower than that for a teacher, who received a monthly salary of *f* 75, with a raise every three years of *f* 15 to a maximum of *f* 150.[23] It is unclear why the government permitted such a large financial inequality between a *dokter djawa* and a teacher now that the *dokter djawa* training programme had been improved: the starting salary of a teacher was 50% higher than that of a *dokter djawa* and the maximum salary, 67%.

In 1899 the salary of the *dokter djawa* was raised. Perhaps the then government advisor C. Snouck Hurgronje had a positive influence on this matter. In March 1898 he wrote to the director of Education, Religion and Industry: 'In development these native doctors greatly exceed that of the majority of native officials; their rank remains the lowest, independent of years of service and merit, and their income remains far below the criteria imposed on them by association in the *priyayi*'s world.'[24] He advised significantly increasing the salary of the *dokter djawa*.[25] This came to pass: the starting salary became *f* 70 with four 3-yearly raises of *f* 20 to a maximum of *f* 150.[26] The explanatory memorandum to the Indies budget for 1899 showed that the government had realised that the financial position of the *dokter djawa* compared unfavourably with that of other native officials, who had undergone a shorter and simpler training

22 GB 24-11-1875 no. 7, *Ind. Stb*. 1875 no. 264.

23 Art. 2, GB 6-2-1878 no. 5, *Ind. Stb*. 1878 no. 60.

24 Letter to director of Education, Religion and Industry 21-3-1898, Gobée and Adriaanse 1956:1040.

25 Letter to director of Education, Religion and Industry 21-3-1898, Gobée and Adriaanse 1956:1041.

26 *Ned. Stb*. 1899 no. 125; *Ind. Stb*. 1899 no. 38.

programme.[27] In 1910 the starting salary became *f* 150 per month with four 3-yearly raises of *f* 25 to a maximum of *f* 250 (De Waart 1926a:43).

	Starting salary	Raise	Interval	Maximum salary
1875	50	4 x 10	After 5 years	90 after 20 years
1899	70	4 x 20	After 3 years	150 after 12 years
1910	150	4 x 25	After 3 years	250 after 12 years

Table 6.1. The salary of a *dokter djawa*, 1875-1910

Despite these raises the *dokter djawa* justly complained about their salary. It contrasted starkly not only with that of a teacher, but also with other officials such as the assistant-translator Kartawinata. His starting salary was *f* 125 per month around 1875, much more than the *f* 90 for a *dokter djawa* at the end of his career (Van den Berge 1998:100-1). In a lecture for the Indisch Genootschap (Indies Society) in The Hague, the *Inlandsche arts* W.K. Tehupeiory (1908:115-6) compared the situation of the *dokter djawa* around 1900 with that of native officials of an equivalent rank such as an assistant-district head; his starting salary was *f* 120-150 per month versus *f* 70 for a *dokter djawa*. Native veterinarians started with *f* 75 after a study lasting only three years, and their maximum was also *f* 150. Tehupeiory's findings were confirmed by the municipal physician in Semarang, W.Th. de Vogel; according to him the maximum salary of a *dokter djawa* was lower than that of all other native officials.[28]

TRANSFER

Dokter djawa were often transferred. The future nationalist Soetomo worked between 1911 and 1919 at seven different postings spread all over Java and East and South Sumatra (Van der Veur 1987:xxiv). It is strange that the expense associated with these transfers, for example for the administrative processing, did not stimulate the usually frugal government to let the physicians work longer at one post. In addition, they sometimes

[27] *Handelingen TK* 1898-9, part 3, appendix B no. 6, 19.

[28] W.K. Tehupeiory 1908:210. De Vogel was on leave in the Netherlands at that time and attended the meeting at which Tehupeiory spoke, and De Vogel raised this matter during the discussion afterwards.

ended up in an area where they did not speak the local language. The many transfers did not promote a relationship of trust between the *dokter djawa* and his patients, and presented the *dokter djawa* with financial problems. The journey from one post to another often took several days. Along the way he had to eat and sleep. The daily allowance, traditionally *f* 1, was too little to cover those needs. For example, a native doctor was transferred from Surabaya to Dobo (Ambon). Halfway there, he had to wait for 14 days for a ship to take him to his new post. The hotel cost *f* 5 per day; just to cover the hotel bill, he had to pay *f* 56 from his own money (Augustin 1914:25). It was aggravating that other native officials received higher daily allowances. In later years a *dokter djawa* would often claim to be ill after receiving a notice that he was to be transferred, possibly a form of sabotage. It apparently happened so often that in 1916 the head of the Civil Medical Service was authorised in the interest of the Service to have the sufferers examined by a medical commission.[29]

STATUS SYMBOLS

Since 1870 the *dokter djawa* wore an official uniform conforming to the rank of *mantri* (*Bijblad* 2308)*;* since 1882 they were entitled to carry a *payung*, equivalent to the rank of a native teacher first class (*Bijblad* 3861). The official uniform belonged to a lower rank than the *payung*. At the end of 1892 this incongruity was abolished: both the official uniform and the *payung* of the *dokter djawa* were made equivalent to that of a teacher first class. The government decided on this 'with the aim to harmonise the social standing of the *dokter djawa* better with the criteria they have to meet, in terms of civilization'.[30]

In 1901 the government took an additional measure to improve the financial position of the *dokter djawa* 'to some extent'; the phrase 'to some extent' in the Colonial Report indicates that the government realised that the measure was inadequate. The *dokter djawa* was finally classed under the native officials who had to keep carriages for their work, for which they were partially exempt from the tax on carriages for natives.[31] Vaccinators had been classified like this since 1887 (*Ind. Stb*. 1887 no. 121). From 1903 graduates were given the rank of assistant-district

[29] GB 17-1-1916 no.11, *Bijblad* 8454.

[30] *Ind. Stb*. 1892 no. 251, *KV* 1893:130.

[31] *Ind. Stb*. 1901 no. 231; other native officials obtained this right earlier, see *Ind. Stb*. 1885 no. 25.

Raden Goeteng Taroenadibrata in the official uniform around 1900 (De Waart 1926b:282)

head, and of district head after reaching their maximum salary (*Ind. Stb*. 1903 no. 369). After the salary raise in 1910, this stipulation was upheld (Augustin 1914:14).

It remains a mystery why the government did not want to make the *dokter djawa* equivalent to other native officials such as vaccinators and teachers, either in salary or in status symbols, although government statements suggest it was fully aware of the inequality.

THE GRADUATES AND THEIR TASKS

After the training programme had been significantly improved in 1875, the graduates could be trusted with more tasks. From 1883 their medicine case contained more instruments than before and more modern ones, including a stethoscope, a thermometer and dental instruments (*Ind. Stb*. 1883 no. 232). They were increasingly employed as primary care doctors. Health officer W. Pauw (1898:788) stated briefly and to the point, 'Now a *dokter djawa* is, so to speak, a civil physician in miniature'.

In 1874, it had already been decided that to aid the graduates' practical development, they would spend the first year after their final exam

working in a municipal hospital in one of the three main towns on Java.[32] In 1911, after his final exam, P.L. Augustin (1914:7-9) started working with two classmates in the municipal hospital in Surabaya. In the mornings they spent an hour in the outpatient clinic; next they each treated 70-80 patients on various wards. Then they moved on to surgery: simple operations they carried out themselves; they assisted a specialist with difficult ones. After lunch they sometimes had to travel to a neighbourhood located more than an hour away, at the request of the police or the district head to examine someone who possibly had a contagious disease. They took turns at 24-hour supervisory duty, during which they carried out autopsies for the court and examined suspicious cases. Sometimes they had to vaccinate 500-600 people in a kampong against cholera, which put additional pressure on those remaining behind in the hospital. There was no time for private patients. When a shortage of native doctors developed, they were rapidly transferred to work independently or to assist European physicians. Augustin was sent after just one and a half months to Merauke (New Guinea).

a 'normal' practice

In his lecture for the Indies Society described above, W.K. Tehupeiory presented a detailed image of the tasks of the *dokter djawa* at the turn of the twentieth century. In his post at Medan (Sumatra's East Coast), he treated the patients in the men's hospital, on average 70 men, but at the time of an expedition sometimes up to 100, and around 20 women in the women's hospital. In the men's hospital he held an outpatient clinic every morning, which was visited daily by about 20 patients in his estimation. According to the annual report on the Civil Medical Service, however, a total of 256 patients was seen in the entire year of 1902 (Haga 1903:760). Furthermore, he was responsible for the leper institute that housed an average of 20 lepers. In the prison he examined a dozen people daily, but this number could rise to 40 when prisoners were brought in from an outpost. In addition, he examined the prostitutes: about 40 Japanese and Klingalese on Tuesday and Saturday and 100 Chinese on Thursday. Furthermore, he was charged with forensic investigations. He

32 *Ind. Stb.* 1874 no. 252, *KV* 1875:125.

had to supply the court with written statements, which took a great deal of his time as there were three days of sessions every week. Once a week he held an outpatient clinic in a place about five km from Medan. This was his regular job from which he earned *f* 70 per month. For the treatment of about 60 Chinese in the hospital maintained by the Chinese, he received a monthly allowance of *f* 50 (W.K. Tehupeiory 1908:111).

During an epidemic, he was expected to disinfect contaminated houses and public buildings along with his normal work and to visit villages sometimes located over 30 km from Medan. As if that were not enough, during his two years in Medan he covered for the *dokter djawa* in Labuan-Deli for five months and one month for a colleague in Lubuk-Pakam. Both places were located one hour by train from Medan (W.K. Tehupeiory 1908:111-2). This was quite a heavy load, even for a young, hard-working doctor like W.K. Tehupeiory. The number of outpatient visitors was probably exaggerated in order to impress his imposing audience and in the hope of contributing to an improvement in the situation of the native doctors. Tehupeiory did not even mention all the documentation a government physician had to prepare, such as writing reports and answering queries.

Native doctors were allowed to establish a private practice alongside their government post, just like their European colleagues. That was not easy to accomplish in reality, however. According to Snouck Hurgronje and also Tehupeiory, setting up a lucrative private practice was only possible in places where rich Chinese lived.[33] Tehupeiory (1908:115) described rather enviously that he knew of several *dokter djawa* on Sumatra's east coast who daily treated 50 to 100 poor Chinese free of charge in the outpatient clinic and severely ill Chinese women at home, who apparently could not make it to the outpatient clinic. These *dokter djawa* could afford to do this because of the generous payments from other Chinese. They were financially independent and did not work in government service. Augustin (1914:19) recounted that a few native doctors managed to earn 60-70 guilders per month with a private practice alongside their regular tasks. The colonial government set the fees: *dokter djawa* were only allowed to charge their fellow countrymen one guilder per visit. This fee, set in 1874, was still unchanged 30 years later.[34]

33 Letter to director of Education, Religion and Industry 21-3-1898, Gobée and Adriaanse 1956:1040.

34 Education, Religion and Industry Circular 5-10-1874 no. 10337, De Freytag 1899:62.

NEW TASKS

Near the close of the nineteenth century, the many infrastructural projects that the government implemented produced a new field of work for European and native doctors. The Agrarian Law of 1870 led to an increase in private initiatives, which produced economic expansion and then the construction of railways, ports and roads (Joop de Jong 2000:292-3). European physicians and *dokter djawa* were temporarily employed to care for the personnel who worked on the building of the roads and canals, railways and telegraph lines. In addition, doctors were sought to care for the employees of government enterprises such as the tin mines on Bangka.

Medics were also needed on the military expeditions as part of the 'consolidation' of the colonial empire in the Indies. First of all, in the protracted war in Aceh, four *dokter djawa* had been stationed there since the end of 1876 (*KV* 1877:133). The two *dokter djawa* associated with the school as assistant-teachers went along on the campaign to Lombok in 1894-1895 (*KV* 1895:150). In addition, doctors had to accompany many scientific expeditions around the turn of the century. For example, the *Inlandsche arts* J.E. Tehupeiory, the older brother of W.K. Tehupeiory, went on an expedition to Kalimantan in 1902; he wrote the book *Onder de Dajaks in Centraal Borneo* (Among the Dayak in Central Kalimantan, 1906) about his journey. Another new aspect was accompanying pilgrims to Mecca. A doctor had to sail on ships with more than 200 passengers.[35] One of those supervising a journey to Mecca in 1887 was I. Groneman, the sultan of Yogyakarta's personal physician (Buddingh' 1989:7). Advisor for Native Affairs Snouck Hurgronje proposed in 1888 making a skilled *dokter djawa* available for the consul in Jeddah, who as a Muslim would have free access to Mecca and would win trust in many circles through his work. It took 30 years before the first native doctor was appointed.[36]

Individuals were assigned to missionary hospitals, such as Ismael in Mojowarno (Nortier 1939:259). Soetomo worked in 1912 in the missionary hospital in Blora (Pramoedya Ananta Toer 1988:26). He was not a Christian, although generally Christian *dokter djawa* were sent to the mis-

35 Ordinance GG 7-5-1902, *Ind. Stb.* 1902 no. 199.

36 NA, archive of consulate in Jeddah, 1872-1930, access number 2.05.53, found via www.moranmicropublications.nl.

Dokter djawa Ismael (photo collection KIT 10018625)

sionary clinics. They remained in government service and were seconded to a missionary hospital.

INTERMEDIARY

In this period the government and the European physicians increasingly involved the *dokter djawa* as an intermediary: their training programme and background sometimes allowed them to fulfil a bridging role between the population and Western medicine. The editors of the *Tijdschrift voor Inlandsche Geneeskundigen* often used them as informants.[37] For example, the editor and also teacher at the school, A. van der Scheer (1893:56), asked them to collect data about opium use:

> You, *dokter djawa*, given the nature of your employment are best suited to investigate the influence of smoking opium. We hope that you would be willing to commit your observations to paper, make notes showing the nature of withdrawal symptoms that you observed in your patients, and if possible describe the pathological changes that you find when conducting autopsies of addicts.

The Civil Medical Service inspector, A.G. Vorderman, was an expert on indigenous remedies. He still asked for help from the *dokter djawa* when trying to catalogue all of the tricks used by native criminals when preparing poison to get rid of people without being suspected. According to Vorderman (1893:81-3) the *dokter djawa* would learn about these ruses sooner than European physicians because they understood the language and the customs better. Several years later, in 1897, the regional administrators in the Indies were asked by the director of Education, Religion and Industry to collect the poisons used by the natives on behalf of the students being trained in the Pharmaceutical Laboratory in Utrecht for the military pharmaceutical service in the Indies. The director pointed out that it could be very fruitful to use the services of *dokter djawa*.[38]

The director of the vaccine institute and the Pasteur institute,

37 The periodical was established in 1893. The editorial board consisted of the director and/or a teacher from the school. The contents kept the graduates informed about the latest developments through articles from teachers and actual case studies from graduates. Authors were paid a fee.

38 Circular 17-3-1897 no. 3899, Greshoff 1902:9-11. The appeal resulted in a flood of material and data, which were processed by M. Greshoff, and published in *Indies vergiftrapporten* [Poisoning reports from the Indies], The Hague:Van Kleef, 1899-1900 (reissued in 1902 and 1914).

L.J. Eilerts de Haan, was very interested in massage, which had little to do with his position.[39] In 1893 he presented two patients whom he had treated with massage at a meeting of the Vereeniging tot Bevordering der Geneeskundige Wetenschappen in Nederlandsch-Indië. He was pleased with the results achieved and curious about other people's experiences.[40] In the same year he published in the *Tijdschrift voor Inlandsche Geneeskundigen* a rather technical article about massage with precise instructions that culminated with an appeal to the *dokter djawa*:

> In general, the manner in which the natives apply massage probably differs quite a bit from the method described here, but little has been written about it so far. It would be important for the *dokter djawa*, who come into contact frequently with the population, to investigate in detail how massage is applied in the different regions of the Netherlands Indies. Perhaps in this field, like in many others, a lot can be learned from the experience of non-medical personnel. I shall close with a request to you all to ascertain which diseases of men and animals the natives treat with the application of massage and what methods they use, and to communicate your findings to the editor of this periodical. The smallest detail is of interest, many small pieces form a large whole. (Eilerts de Haan 1893:43.)

Regarding sensitive topics in the indigenous society – as in the European – like abortion, menstruation and circumcision, it seemed logical that interested Europeans would turn to the *dokter djawa* instead of embarrassing the natives. The previously mentioned editor Van der Scheer asked the *dokter djawa* whether they would try 'to learn about some indigenous abortifacients from *dukun*, as in the European medicine no one has yet succeeded in finding an abortifacient that definitely works in all cases' (Asharie 1896:31-2). This quotation reflects an equal relation between the European and the indigenous medicine: the European medicine did not know of a safe abortifacient, but perhaps the indigenous medicine and the often disparaged *dukun* did.

Sometimes little tasks were involved, for example the *dokter djawa* were requested to collect rice samples for research into the cause of

39 Later, definitely from 1897 onwards, he worked in an institute for massage and mechanotherapy, affiliated to the military hospital in Jakarta, Eilerts de Haan 1898:288.

40 *Notulen Geneeskundige Vereeniging* 1894:113.

beriberi.[41] This seems a simple assignment in a land where rice is the primary staple, but by involving the *dokter djawa* who knew what these samples were for, the chance that they would be collected carefully was greatly increased. A similar request concerned delivering an orang-utan for an investigation of the cause of syphilis. At the turn of the twentieth century, the German scholar A. Neisser resided in Jakarta for several years, conducting research on syphilis.[42] The editor of the *Tijdschrift voor Inlandsche Geneeskundigen,* G.W. Kiewiet de Jonge, issued an urgent request to the *dokter djawa* to assist science by ensuring that Neisser obtained an orang-utan (Kiewiet de Jonge 1905:160-4). The *dokter djawa* were asked rather than a random native because they knew that the apes were needed for scientific research.

In the case studies described, there was an evident gap between the indigenous society and the European physicians, who rarely came into contact with natives given the composition of their patient population. In addition, they generally spoke Malay poorly, and Javanese or Sundanese not at all. The cultural and social barriers between the two groups were large. In an attempt to bridge them, the Europeans called on the *dokter djawa* to act as an intermediary.

Sometimes this process went a step further, and the *dokter djawa* were employed by the government and its officials to support the Dutch rule. An example was provided by A,J.N. Engelenberg, *controleur* on Lombok from 1894 to 1900, The island had just been brought under direct administration of the Netherlands after the greatest defeat in the history of the Indies army, known as the 'Treason of Lombok' (Vanvugt 1996:155). Engelenberg (1926:274) described how the people suffered under the long-lasting rebellion of the Sasaks, the original inhabitants of Lombok, against the Balinese administration (and under the consequences of the government's military expedition, although Engelenberg did not mention the latter aspect). Hunger was prevalent, and all kinds of diseases raged among the inhabitants, who did not have much resistance left. To make matters worse, a smallpox epidemic broke out; it cost a great deal of effort in the beginning to convince the people of the benefit of vaccinations, but ultimately they considered it a powerful magical agent

41 *Tijdschrift voor Inlandsche Geneeskundigen* 7-2 (1899), inside front cover: correspondence.

42 He became famous for the discovery of gonococcus in 1879, later called *Neisseria gonorrhoeae* in his honour.

against the evil spirit of the smallpox scourge. The few physicians and vaccinators on Lombok were busy day and night combatting smallpox and other diseases: 'In this way they contributed greatly to the work of pacification required on Lombok after the days of conflict during the military expedition'. When it was quiet again, the population emerged from hiding places and started working on the land again. Then they were afflicted by malaria and abdominal disorders: 'Again the physicians helped us. Our medics contributed to bringing the people closer to us; the Dutch were apparently not just warriors and administrators; they could also avert disasters that the evil spirits cast over the people.' For Engelenberg the conclusion was clear: 'To conduct prudent propaganda to encourage the people's trust in Western medicine, surgery and obstetrics, the native doctors along with good nurses and orderlies are the appropriate agents'. We had already heard similar views from A. Pruys van der Hoeven and C. van Swieten and later in 1908 from the Commission charged with the reorganisation of the Civil Medical Service: 'Providing medical assistance on a large scale is one of the surest means of winning the trust of the population. Especially in the Outer Possessions that has proven to be true in a graphic way' (Bijker et al. 1908:43). The same style was used by a teacher at STOVIA, E.R.K. Rodenwaldt, who considered the *dokter djawa* the advance guard of Western civilisation and ascribed to them an appropriate role:

> The students must be thoroughly persuaded that it is namely *their* task, because they were born there and probably understand the population's mental state better than the European hygienist can, to convince the population to adopt a more hygienic lifesyle with tact and compassion on the one hand, but also with firm scientific conviction supporting boldness on the other. As government-employed native doctors, *they* are the ones to make the population understand that the government means nothing more by the hygiene measures than to create a basis on which the progress of human society in economic and spiritual terms is made possible.[43]

[43] Rodenwaldt 1926: 200. He was appointed professor of hygiene in Kiel in 1934. He was a confirmed national-socialist and participated in the Auslandsorganisation der NSDAP. After WWII he was dismissed as a lecturer because of his Nazi past, Klee 1997:195, 203, 311 (with thanks to Walter Bruchhausen, Medizinhistorisches Institut, Bonn).

NOT IN GOVERNMENT SERVICE

Until now, we have referred almost entirely to *dokter djawa* in the service of the government. There were other employers than the government, however. The rulers in the Principalities had their own medical personnel from the start of the nineteenth century, some of whom were Western-trained. For example, the *susuhunan* of Surakarta had two *dokter djawa,* one or two Western-trained native midwives and a number of vaccinators in his service. The sultan of Yogyakarta employed one *dokter djawa*, five vaccinators and a chief vaccinator (Schoute 1936:185).[44]

Direct gevraagd voor Deli
EEN DOKTER DJAWA.
Aanvangsalaris f 350.— en vrije woning Goede vooruitzichten. Br. fr. onder letters **L. P.** a. d. Administrateur v. d. Deli-Courant te Medan (Deli). 1995

GEVRAAGD: **Een bouwkundig teekenaar,** ook bekend met terrein-werkzaamheden om in tijdelijken dienst te treden bij een Technisch bureau.
Aanbiedingen onder opgave van leeftijd, verrichte werkzaamheden, gewenschte bezoldiging en bekendheid met inlandsche talen onder No. dezer. 2006

IEMAND: van middelbaren leeftijd, gepensionneerd, ± 20 jaar bij een en dezelfde transport Mij. in Indië gewerkt hebbende, zoekt betrekking in den handel of cultures. Offertes onder no. dezer. 1994

One of the many advertisements in which a company seeks to employ a *dokter djawa*

44 *Het Nieuws van den Dag voor Nederlandsch-Indië* 4-12-1905, p 4; 22-4-1907, p 4; 28-5-1907, p 4 (again a day later; this was a tobacco company in British Borneo); 31-5-1907, p 4 (repeated a day later); 17-1-1910, p 7 (repeated on 18, 19 and 20 January); 19-7-1910, p 7; 4-8-1910, p 7; 6-8-1910, p 8 (repeated on 8 and 10 August); 17-10-1911, p 4 (repeated for the next 2 days); 17-1-1912, p 4 (repeated 14 times); 16-12-1912, p 4 (repeated on 19 and 21 December); 16-2-1915, p 4 (repeated 4 times); 11-7-1917, p 8 (repeated on 13 July); 6-8-1917, p 8; 14-9-1917, p 7; 5-11-1917, p 7 (repeated on the next 2 days; it concerned a company in Surinam).

An increasing number of companies also required medical care for their personnel. The larger companies employed their own doctors: European physicians for the European personnel, and *dokter djawa* for the coolies. For example, the Billiton company had a *dokter djawa* certainly in 1878, the Batjan company did in 1885, and the Koetei coal company in southeast Kalimantan did in 1894.[45] The private companies offered the *dokter djawa* attractive working conditions. During his tour through the Indies, the MP H. van Kol confirmed that the payment and the working conditions of a *dokter djawa* in the civil hospital in Bandung were abominable: 'Is it surprising that many of them, and particularly the best ones, look for work with less harsh treatment in private companies or in mining regions?'[46] The *Inlandsche arts* Sitanala obtained work in 1916 at a branch of the Crediet- en Handelsvereeniging Banda and at Mr. Clark's firm on Awaya (Ambon). He earned *f* 600 per month and had in addition the right to free accommodations, free lighting, two servants, free passage first class to his place of work, and exemption from income tax. If he became ill, he was given three months' leave while retaining his salary, free first class passage to Surabaya and reimbursement of the cost of medical treatment there. The three-year contract was so attractive that Sitanala resigned from government service (Keppy 2004:242-3). The only benefit of a job in service to the government was that the contract was for an indefinite period. The risk of being dismissed from private employ was small, however, because if the contract was not renewed, he could always return to government service, where he would be welcomed with open arms. The shortage was that great. As the government always provided a safety net, it was worthwhile to try to establish a private practice, for example through an advertisement. [47]

The graduates in private service remained part of the medical community. There were also students who dropped out prematurely from the training programme to take up a better paid job outside medicine. The lack of educational facilities in the colony only amplified the problem. In 1892 the director of the school, the future Nobel prize winner C. Eijkman, noted that students from the Moluccas, after graduating

45 Respectively *KV* 1878:125; *KV* 1886:103; *KV* 1895:149.

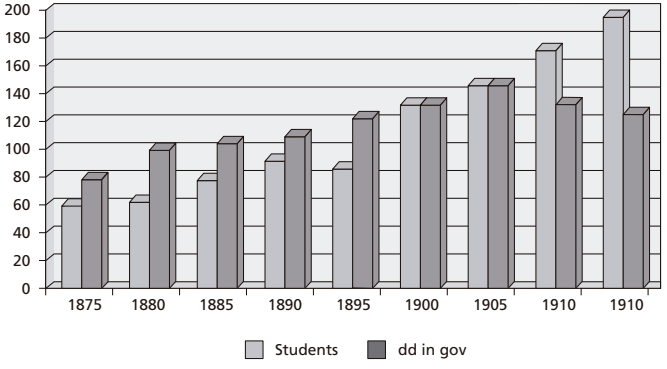
46 Van Kol 1903:577; He worked in the Indies in 1876-1884 and in 1886-1892 as public works engineer; afterwards he ran the coffee company Kajoemas on East Java from 1883. He was a MP for the Social Democratic Party (1897-1909), Janny de Jong 1989:264-6.

47 *Het Nieuws van den Dag voor Nederlandsch-Indië* 2-3-1907, p. 4 (repeated on 4 and 5 March); 19-12-1912, p. 7 (repeated a day later).

Advertisement from a *dokter djawa* looking for work

to the medical section, often strove to be expelled from the school (*KV* 1892:122). One of the later directors, H.F. Roll, felt it did not encourage the learning process that many of the students expelled from the school soon found jobs with relatively high salaries. Expulsion did not work as a punishment (*Jaarlijksch verslag STOVIA* 1905:7). The *Inlandsche arts* W.K. Tehupeiory, himself Ambonese, did not find it strange that Ambonese students abandoned the training programme after a few years, given the poor prospects. With what they had learned, their knowledge of Dutch and some common sense, they could easily find another job with the gov-

ernment with a much more favourable perspective.[48] The government advisor Snouck Hurgronje confirmed that for older students, the future as *dokter djawa* was often frightful, so they tried to get expelled from the school to take up a more lucrative option.[49]



Graph 6.2. Number of students and number of *dokter djawa* (dd) in government service in 1875-1915

Graph 6.2 shows that in the period 1875-1915 the number of students continued to rise, except around 1895. The number of *dokter djawa* and *Inlandsche artsen* in government service likewise increased until 1905 and then declined, a strong drop that is accentuated because the number of students continued to rise. In addition, the training programme lasted seven (in 1875) to ten years (in 1913), while the duration of service was 30 years. In other words, a person spent much less time as a student than as a doctor, so the number of graduates should have risen even more. With some exaggeration one could say that STOVIA trained doctors for the business community. The government was partly to blame for the unfavourable result because it offered the drop-outs jobs. The big loser was the Civil Medical Service: fewer doctors remained to fill the population's growing need for medical care.

48 W.K. Tehupeiory 1908:110. In 1910 a sugar factory was looking for a warehouse manager; in the advertisement in *Het Nieuws van den Dag voor Nederlandsch-Indië* (6-10-1910, p 7) graduates of the *dokter djawa* school were asked to apply.

49 Letter to director of Education, Religion and Industry 21-3-1898, Gobée and Adriaanse 1956:1041.

SHORTAGES

The ethical policy increased the need for European and native doctors, as did the number of private companies seeking medical care for their personnel. Both the government and private entrepreneurs complained about shortages. Already in 1889 the director of Education, Religion and Industry, P.H. van der Kemp, mentioned in a circular to the regional administrators 'the large and urgent need for suitable *dokter djawa* that you are aware of'.[50] During the cholera epidemic of 1902, the director of Education, Religion and Industry was besieged by various residents with requests for one or more *dokter djawa*, but there were none available (Kohlbrugge 1904:10-5). The administrator of the Liberia coffee company, Sagala Midar (Lampong), complained that so many coolies were ill.

> If we had a doctor here, even just a *dokter djawa*, then we could at least distinguish the cheats from the real patients and thus save on an important contingent of currently wasted labour. But it is impossible to recruit a full-time European doctor, it would be much too expensive, and we cannot be assigned a *dokter djawa*; only a limited number are available, and they are all employed by the government. (Doeff 1896:190.)

The last part cannot be correct because the government also suffered from a shortage. Native officials with a monthly salary under 150 guilders were not entitled to free medical treatment, unlike their European colleagues. When the MP Van Kol pointed this out to the minister of Colonies, T.A.J. van Asch van Wijck, Esq., in 1901, the latter promised to end this discrimination.[51] But when examining the Indies budget for 1904, Van Kol noted that nothing had changed. The minister stated that there were still not enough *dokter djawa* to expand the group entitled to free medical treatment.[52]

The training programme was also negatively affected by the shortage. Given the scarcity of native doctors, the director of STOVIA abandoned the request for more assistant-teachers so they could continue

50 Circular from director of Education, Religion and Industry to the regional administrators on and outside Java and Madura 9-10-1889 no. 10305, *Bijblad* 4530.

51 *Handelingen TK* 1901-2, meeting of 27-11-1901, 198.

52 *Handelingen TK* 1903-4, meeting of 26-11-1903, 516-8; Report 26th meeting of Lower Chamber of 26-11-1903 in: *Bulletin Bond van Geneesheeren in Ned. Indië* no. 11 (May 1904).

treating the many patients attending the outpatient clinics (*Jaarlijksch verslag STOVIA* 1903:8). In 1890 the director, C. Eijkman, proposed adding obstetrics to the curriculum. Despite the support of the head of the Medical Service, H. van Lokhorst, and the director of Education, Religion and Industry, P.H. van der Kemp, the proposal was rejected (*Historisch overzicht* 1898:54-5). The government was afraid that increasing the study load would negatively affect the number of graduates (Van der Burg 1896:1971). However, the subject was introduced in 1902 after all, although the shortage had still not been relieved.

ALLEVIATING THE SHORTAGE

To meet the increased need for more native doctors, the number of graduates had to be increased. It was first resolved that the graduates would no longer be used as vaccinators. In 1878 it was decided that about 40 vaccinators who had been trained at the *dokter djawa* school would be appointed as *dokter djawa* if their skills were still adequate. It was simple to find replacement vaccinators. This measure produced 13 *dokter djawa*.

In addition, in 1900 the maximum number of students was doubled from 100 to 200. The increase was not needed to cover the number of students registered at that time, so more focus was put on recruitment. In circulars the regional administrators were called upon to propose candidates.[53] In addition, pressure was exerted in 1901 and 1902 on Director of the school Roll to accept more students. He did not intend to lower the standard, however (Roll 1909:52).

Incidental measures were taken to alleviate the greatest need. In 1901 it was decided to employ suitable students from the final academic year if necessary.[54] This was done, for example, during the plague epidemic in Malang (Pasuruan) in 1911. Eight excellent final-year students were awarded their diploma without having to take exams and were immediately put to work combatting the plague (De Waart 1926a:50-1). As a last resort, the assistant-teachers of the school were employed. Raden

53 Circular end of 1875, *KV* 1876:123; Circular from director of Education, Religion and Industry to the regional administrators on and outside Java and Madura 9-10-1889 no. 10305, *Bijblad* 4530; Circular from director of Education, Religion and Industry to the principals of public primary schools in the Netherlands Indies 21-9-1891 no. 9382a, *Bijblad* 4776; a couple of years later the circular from Director Abendanon to the European school commission in the Netherlands Indies 13-9-1900 no. 12045a, *Bijblad* 57663.

54 GB 28-9-1901 no. 1, *KV* 1902:205.

Soerjatin had to help out in 1902 with contagious diseases in Jakarta; his work at the school suffered as a result (*Jaarlijksch verslag STOVIA* 1903:8), but combatting the epidemic apparently took precedence. From 1906 a few retired *dokter djawa* were employed, for example at the Chinese hospital in Jakarta (*KV* 1907:appendix R), combatting smallpox in Mojokerto (Surabaya) and combatting malaria in Pasuruan (*KV* 1913:appendix T). In 1913 given the shortage of native doctors, 20 European nurses were recruited.[55] The lack was also filled with laypeople, both European and native. Traditionally, *controleurs* had a medicine case; this 'privilege' was now also granted to the assistant-ministers, first in the Minahasa, later also elsewhere in the archipelago (*KV* 1893:130, note 1).

how to retain them for the Civil Medical Service

The student drop-out rate and the graduates' departure from government service stimulated the government to take measures to retain the graduates for the Civil Medical Service. One of the reasons for lowering the minimum age for admission to the school in 1879 was the hope that younger students would be less sensitive to the poor prospects of the *dokter djawa* and the allure of alternative options than older students (*KV* 1879:121).

With the salary raise in 1899, the government hoped to prevent the *dokter djawa* from being tempted by better offers from mining or agricultural entrepreneurs and leaving the national service prematurely (*KV* 1899:119). This was unsuccessful because the new salary was still much lower than that offered by private companies. The MP Van Kol called this improvement half-baked. The government would only benefit partially from the expansion of the *dokter djawa* school, as it was unable to offer the same salary as private companies.[56] The government quickly realised that this salary raise was indeed inadequate and resorted in 1901 to a very different measure, the so-called binding agreement. Upon admission to STOVIA, a candidate had to sign a declaration that he would serve at least ten consecutive years in government service after graduation, at any post to which the government would send him.[57] The objective was obvious: '[G]iven the desirability of strengthening the bond

55 *KV* 1913:12 and *KV* 1914:114.
56 *Handelingen TK* 1899-1900, meeting 3-5-1899, 979.
57 Art. 9f Regulation 1902, *Ind. Stb.* 1902 no. 443.

between the State and the *dokter djawa*, and thus preventing them from leaving for more lucrative employ with private companies, as has already frequently occurred' (*KV* 1901:82). If they left government service before ten years were up, they had to pay back the full cost, regardless of the number of years of service. As Graph 6.2 shows, the binding agreement was not the answer either: the line continued to drop. In 1909, 12 *dokter djawa* entered private service while 11 students graduated that year (*KV* 1910:160). Two years later the situation had deteriorated further: 26 *dokter djawa* left the government service, and only 15 were awarded their diploma.[58]

POSITION OF DOKTER DJAWA IN THE CIVIL MEDICAL SERVICE

From 1890 onwards, the duties and responsibilities of European physicians were transferred in stages to native doctors. The first step was allowing a certain task to be carried out by *dokter djawa* when the European physician was absent. The next step was the native doctor performed this task himself, and it would only be done in his absence by the European physician responsible for the Civil Medical Service.[59] The one exception was the inspection of prostitutes, which was reserved for European physicians.[60] The fact that natives were now conducting tasks originally done by Europeans did not mean that they were paid the same. Their salary contrasted greatly with the Europeans': to temporarily fulfil the duties of the Civil Medical Service, a *dokter djawa* received an allowance of *f* 25 per month and a European physician *f* 100 to *f* 300.[61] For quarantine services, a European physician was paid *f* 10 for every inspection on board a ship and the native doctor, *f* 3.[62] These differences must have led to irritation over time. In addition, the conditions under

58 *KV* 1912:134; *De Sumatra Post* 12-3-1915, p 10 mentions that between 1906 and 1913, 81 graduated while 118 *dokter djawa* left government service.

59 GB 9-10-1890 no. 7, *Bijblad* 4710; Art. 5 and 9, *Reglement betreffende de bevoegdheid en verplichtingen van dokter djawa (Inlandsche geneeskundigen)*, Resolution from director of Education, Religion and Industry 2-1-1902 no. 32a, *Bijblad* 5663; Resolution Bogor 6-6-1902 no. 1, *Bijblad* 5719; Circular from director of Education, Religion and Industry 13-12-1909 no. 20152, Augustin 1914:3.

60 GB 1-3-1884 nr. 10, *Verzameling bepalingen Inlandsche geneeskundigen* 1901:70.

61 Respectively, *KV* 1891:appendix BB, note l, bb,cc,ll,mm,oo,qq; Appendix BB, note e, u,x,z,aa, ff,hh; Appendix BB note ij (150), gg (150-300).

62 Resolution GG 12-7-1881 no. 6, *Ind. Stb*. 1881 no. 157.

which the *dokter djawa* worked were often wretched. During his inspection tours, the Civil Medical Service inspector, C. Winkler, often saw *dokter djawa* working on the porch of their own house, having to provide their own furnishings, even a sink in the operating room (Bijker et al. 1908, appendix II:213-23). He felt 'that it was going too far to require native doctors to provide the furniture for their service in a government building in this way'.[63]

COLLABORATION OF EUROPEAN PHYSICIANS AND DOKTER DJAWA

Sometimes European physicians and *dokter djawa* worked well together, but the sources mostly report tension. Good news is not exciting after all. Some European civil physicians insisted on having a *dokter djawa* in their posting and then assigning the majority of the tasks for the Civil Medical Service to them, while pocketing the allowance themselves. J.H.F. Kohlbrugge (1904:10-5), civil physician in Sidoarjo (Surabaya), felt this was unfair to the civil physicians without a *dokter djawa* as assistant who thus had little time for their private practice. He did not mention that the *dokter djawa* could hardly establish a private practice for himself. *Dokter djawa* Raden Goeteng Taroenadibrata (1926:282) did notice this, and he suggested that the European physicians feared competition: 'Not all that long ago, there were civil physicians, who wished to have native doctors as assistants under the condition that they did not practise'. In 1906 the Commission charged with the reorganisation of the Civil Medical Service talked about competition between Europeans and *dokter djawa*, which led to the European physicians neglecting their assigned tasks to support the development of the *dokter djawa*, which dated from 1856: 'They [European physicians] earn a large part of their income with the treatment of Chinese, and servants and labourers employed by Europeans. The greater the effort they invest in training the *dokter djawa*, the greater the risk that the latter would damage their own practice' (De Waart 1926a:6). This is echoed in A. de Waart (1919:92), first teacher and from 1925 director of STOVIA: further training of the graduates was just for show because the private physicians did not want to 'cultivate' their competition.

63 Report Jepara 11-9-1906, Bijker et al. 1908, appendix II:221.

The collaboration between European and native doctors culminated once in an open conflict. In 1901 P. Engelmaijer, civil physician in Bangkalan (Madura), asked the head of the Medical Service to transfer the *dokter djawa* because he did not do his work well enough: he had refused to visit a native because he was gambling with a Chinese. He was not transferred because, according to the head, this was a case of a less successful relationship, but then the *dokter djawa* tendered his resignation from government service. Due to the great shortage, this was also denied. Engelmaijer was ordered to point out to the *dokter djawa* that he would be eligible for a salary raise and transfer the next year. Engelmaijer submitted a protest to both the head of the Medical Service and the director of Education, Religion and Industry. When he did not receive a quick reply, he published this case in the *Bulletin van de Bond van Geneesheeren in Ned.-Indië.* His protest concerned the government protection of a poorly functioning native doctor, while punishment of European physicians who were accused of not doing their work properly was severe. He was referring to the suspension of two European doctors by the director of Education, Religion and Industry, J.H. Abendanon, a case that caused a commotion among European physicians.[64] This case was given the revealing title 'Quod licet Jovi (*the dokter djawa*) non licet bovi (*the European Physician*)' (Schülein and Van Gorkom 1903:9-11). European physicians felt that double standards were being applied. This practical case supported their suspicion that for ethicists like Abendanon, a *dokter djawa* had an unassailable godly status. The shortage of native doctors was reflected in this case. The *dokter djawa* could resign because he knew he could easily find other work. The same shortage prevented the government from accepting his resignation. It is inconceivable that the government would postpone the right solution – transfer – by a year while the conflict was apparently escalating.

DEBATE ABOUT THE DOKTER DJAWA WITHIN THE CIVIL MEDICAL SERVICE

The ethical policy addressed the best form of medical assistance for the population. The native doctors played an important role in the discussion: should their training programme be extended, choosing quality, or

64 They were J.K.J. Chambry in Jakarta and A. Ellinger in Tegal. Their suspension led to the establishment of the Bond van Geneesheeren in Nederlandsch-Indië, W.J. van Gorkom 1902:27.

Bust of Roll. This is now in the anatomy museum in the Cipto Mangunkusumo Hospital, Jakarta (photo J.H. Peters).

should as many native doctors as possible be trained as assistants, choosing quantity?[65]

The former student Jacob Samallo (1926:291) recalled that there was talk of making the training programme easier. 'The government wanted to turn us into village doctors because then every year more medical assistants could be supplied. But Father Roll was not pleased. […] Luckily for the institute and for our people, Father Roll managed to get his way.' The teacher Th.G. van Vogelpoel reported that the government, once it had discovered the *dokter djawa* were useful instruments, exerted pressure on STOVIA to supply as many students as possible each year. The head of the Medical Service, J. Haga, felt it was enough if the *dokter djawa* could recognise and treat simple diseases, but the director of the school, Roll, wanted to train the *dokter djawa* to be skilled doctors, who could win the population's trust in Western medical science (Van Vogelpoel 1926:139-40). The influence of Haga as head of the training

[65] The viewpoints in this discussion match those in the debate on education. Snouck Hurgronje and Abendanon 'favoured an elitist approach. They wanted more European-style education in the Dutch language for a Westernized Indonesian elite'. Minister of Colonies Idenburg and GG Van Heutsz 'favoured more basic and practical education in vernacular languages for these lower levels. […] Under Abendanon the elitist approach was favoured.' (Ricklefs 2001:199.)

programme was greatly reduced in the new regulations of 1902 so that – as Samallo noted – Roll enforced his will, partly thanks to the support of Director of Education, Religion and Industry Abendanon.

The civil physician Kohlbrugge (1904:10-5) felt it was wrong, given the pressing need for native doctors, to make the criteria imposed on the applicants stricter and to extend the duration of the training programme. He considered it more important to train assistant doctors, an approach he had good experience with. Others preferred no assistant rather than a partially trained one and thus favoured a few, well trained native doctors over assistant doctors. The mistakes of the latter would put European medicine in a bad light as far as the population was concerned.

Another question in the discussion was whether the *dokter djawa* could work independently. The civil physician W.J. van Gorkom (1904:35, 42-3) thought them incapable of doing so, and according to him that would never change. Many European physicians felt similarly (Bervoets 1898:380), as did even a director of Education, Religion and Industry.[66] We see this idea also reflected in the clarification of a budget amendment.[67]

The discussion about the position of the *dokter djawa* was given an impulse around 1900 when the reopening of the midwives' school was considered. Opponents, such as Health officer A.A. Gersen (1901:586-8), expected that expanding the competence and number of *dokter djawa* would bring greater improvement in the medical and maternity needs of the population than another midwives' school.

Clearly there was a range of opinions about the position of the native doctors in health care. A definitive standpoint was linked to the vision of the Civil Medical Service as a whole, which would be formulated in 1908 by the Commission charged with its reorganisation.

DOKTER DJAWA BETWEEN TWO CULTURES

The *dokter djawa* existed between two cultures in the colonial society. From their background, they belonged to the indigenous society. The

66 C. Bosscher, director of Education, Religion and Industry 1884-85, considered them 'at best as helpers under the supervision of European physicians', Laméris 1881:173.

67 *Handelingen TK* 1898-99, appendix B, budget amendment no. 34, 2:'These physicians were supported by 80 *dokter djawa*, but management, supervision and initiative were only expected from European physicians'.

government wanted them to return to their regions of origin after graduation to work as doctors. While attending the training programme, however, they spent many years in a European environment, and as the level of the training programme rose, this period became longer. There must have been consequences for being immersed in a Western lifestyle and mentality from a young age, far from one's family for seven and later ten years. This position between two cultures was difficult.[68] The students dealt with it in different ways, as the following anecdote shows. An assistant-resident in Central Java shook everyone's hand at the ceremony honouring the assumption of his new post: the *patih*, the *wedono*, the *penghulu* and the *jaksa*. But he refused to shake the hand of a seconded *Inlandsche arts*, a Christian from West Java dressed in European clothing. He was highly insulted. The local *dokter djawa*, a Javanese, apparently sat quietly on a mat on the ground. According to the storyteller, *dokter djawa* Raden Goeteng Taroenadibrata (1926:283), it was an awful moment for both of them that they would remember for a long time.

ADAT

The position between two cultures sometimes led to tension, for example concerning the *adat* rule that a lower-ranking person could not allow a higher-ranking person to pay for a service rendered. This formed a problem for a *dokter djawa* (De Waart 1926a:6-7); in general, his indigenous patients belonged to the higher classes. In 1904 a resident reported that in his district *dokter djawa* were practically never paid by native officials and only rarely by Europeans. *Dokter djawa* submitted a bill only sporadically 'either because this was not generally accepted practice or they felt it was inappropriate or for fear that it would make people angry at them'. In a circular to all regional administrators, the government condemned such practices as using rank to avoid paying for medical services: 'The government considers it improper if officials take advantage of the existing misunderstanding or prejudice to be treated free of charge when they have no right to such service'.[69] These strong words did not put an end

[68] Van Niel 1960:56: 'Yet none of them [STOVIA, law school, et cetera] was equipped to help its Indonesian graduates to cope with the tremendous psychological and spiritual problems which followed as an aftermath from education that was tuned to a non-Indonesian way of life'.

[69] Circular from first General-Secretary Paulus to the head officials of the Department of General Civilian Administration and the heads of the regional administration 23-9-1904 no. 3741, *Bijblad* 6086.

to the practice, however, as appears from the following case. In 1906 a resident's secretary summoned a *dokter djawa* to his office to speak to him about an invoice for a European who had no right to free treatment. The invoice was only paid after the *dokter djawa* referred to the circular from 1904 in a letter to the secretary. W.K. Tehupeiory (1908:113-4) described this attempt at intimidation in 1908 to his audience in the Indies Society to illustrate the limited support that the *dokter djawa* received from the personnel of the resident's office. Apparently the European was so indignant that a native had dared to send him an invoice that he complained to the secretary in the resident's office, who in turn thought he could teach the *dokter djawa* a lesson. The latter was not intimidated, however, and spread the story among his colleagues. Thus, Tehupeiory came to hear of it in far-off Medan.

A very different *adat* rule concerned the umbilical cord that was only allowed to be cut once the placenta had been delivered. A *dukun bayi* kept to this rule. If the placenta was retained in the uterus, it presented a life-threatening problem for the mother and child. A *dokter djawa* had to tread carefully around this *adat* rule. J.E. Tehupeiory (1905:105-7) felt that the *adat* should be respected as long as it did not endanger the life of the mother or child. His recommendation to his colleagues read: 'Be careful of not appearing overly modern, as it creates alienation from the population'. He was convinced that the population would call on the *dokter djawa* more often once his expertise was more widely known. Until then, the native doctors would do well to respect the *adat* as far as possible and stick to the *dukun*'s methods.

INTERMEDIARY

Some native doctors felt called to act as an intermediary between the indigenous society and Western medicine. The role of the *dokter djawa* as intermediary when considering the attempt of the government or its officials to make them assume that responsibility has been discussed. Below are examples of native doctors who themselves took the initiative to mediate.

Dokter djawa Raden Soemeroe (1898:51) was aware that he was useful and needed in the insane asylum in Bogor other than as an interpreter because he understood the Javanese mentality: 'As the terms for good and evil, stupid and clever, meant something different to natives than to Europeans, an assessment of abnormal or normal thinking would differ

between the races'. The management of the Civil Medical Service must have had a similar idea, as one or two *dokter djawa* were always employed in the insane asylum in Bogor and one in Lawang (Pasuruan). In 1906 the Civil Medical Service inspector advised the director of Education, Religion and Industry to form a corps of native doctors specialising in mental illness. His arguments closely resembled those of Soemeroe: their familiarity with the native character, the language, the customs and the lifestyle of the village allowed them to empathise better with the indigenous patients than the European psychiatrists could, once they were trained for this special task. The Commission charged with the reorganisation of the Civil Medical Service supported this proposal; it would lead to considerable savings because then fewer European psychiatrists would be required.[70] The Commission was clearly more concerned with the financial than the social-cultural factors.

Raden Moehamad Saleh Mangkoepradja, a *dokter djawa* in Sumedang (Priangan), wrote a midwifery handbook in Sundanese that appeared in 1901 and was translated into Malay a year later.[71] In the introduction he wrote that native women, rich or poor, made use of the services of a *dukun bayi* during a delivery. Only when complications arose was a physician called in. Often it was then too late to bring the delivery to a successful conclusion. The woman blamed the physician and thereafter did not ask for his help so easily. Moehamad Saleh Mangkoepradja called on the women from the elite, *priyayi*, to read his handbook and talk about it with the *dukun bayi*. The latter would then realise how important it was to call in a physician earlier. The book is richly illustrated with realistic drawings of female genitalia and the stages of a delivery; this was probably intended to ease the transfer of knowledge. The author clearly felt like a representative of Western medicine and wanted to convey this knowledge to the *dukun bayi* through the *priyayi*-ladies and the illustrations. In this case, a second intermediary was required along with the *dokter djawa* – the *priyayi*-ladies – although it is questionable whether ladies from the elite would want or could act as intermediaries with the *dukun bayi* given the difference in their classes. In a long letter to the editor of a newspaper, one *dokter djawa* envisaged an intermediary role for him and his colleagues

70 Letter 13-1-1906 no. 7/2, Bijker et al. l908:33.

71 Respectively, *Kitab atoeran bab maradjian djělěma noe ngedjoeroe* (1901) and *Kitab pengadjaran bagaimana patoet orang menoeloeng sa-orang perampoean jang beranak* (1902). With thanks to Mikihiro Moriyama, Professor of Indonesian Studies at Nanzan University (Nagoya, Japan), who drew my attention to this.

in the schooling of *dukun bayi* by European physicians. This would work both ways because the *dokter djawa* would then also learn about obstetrics.[72] He wrote this letter before obstetrics was introduced as a subject at the school.

Indische arts Zainal (1926:318-9) used the word 'propaganda': 'The native doctors must therefore consider it a respectable and fine duty to spread propaganda among the population tactfully, with patience, selflessness and serious work, and to stimulate the necessary trust in our great work'. He considered it important that the outpatient clinics should be 'robust and tidy stone buildings, to make an exceptionally favourable impression on the population's ideas about Western medicine'. He felt that outpatient clinics were calling cards for Western medicine.

We also find this point of view expressed by *Indische arts* Goelam (1926:326-7). He had noticed that the population only called for a physician when the *dukun* was unsuccessful. He wanted to make the population aware that the Koran commanded every Muslim to seek competent treatment when ill: 'And where the native doctors […] come into contact frequently with the population on account of their work and get to know them better and sooner, in my opinion enlightening them forms part of our task'.

The physician Raden Mas Noto Kworo (1918:71), trained in Leiden, wanted to achieve the same in the field of obstetrics. He understood that this formed a serious challenge to the indigenous customs and that it would not be an easy task: 'But if we, as sons of this country, familiar with the language and informed about the *adat* and customs, act with tact and care and patience, we believe that we shall succeed in alleviating the suffering of our sisters in the most difficult period of their lives'.

Kartini envisaged a dual form of intermediary role for the *dokter djawa*: 'What couldn't he do to promote the mutual appreciation of the European and the native element. He could acquaint the people with European medicine and draw attention in the European world to simple indigenous remedies, whose effectiveness has been confirmed.'[73]

72 *Het Nieuws van den Dag voor Nederlandsch-Indië* 21-12-1900, p 1-2, titled 'Het streven van *dokters djawa* naar meer kennis' [Native doctors strive to increase their knowledge]. He signed himself as 'a *dokter djawa*'.

73 Letter to Abendanon 14-1-1903, Jacquet 1987:265.

VIEWS OF THE DUKUN

The *dokter djawa* had a range of views about the *dukun*. Some respected their expertise, especially in the areas of abdominal disorders and skin diseases and midwifery.[74] Others went further and devoted themselves to getting medications they had 'borrowed' from a *dukun* incorporated in European apothecaries, such as Soeriadarma (1897:12-6) with *babakan turi* (*cortex agati grandiflorae*), an effective agent to treat chronic malaria. But there were also those who acted as representatives of Western medicine and, convinced of its superiority, denigrated the *dukun*'s methods. For example, the *dokter djawa* in Sawahlunto (Sumatra's West Coast) considered massage just superstition, which could not compete with medical practice.[75] He wrote disdainfully about *dukun* who 'just started' massaging without a diagnosis (Sm 1893:89-91). Tjipto (1905:139-43), Asharie and Si Moro used Latin to assert that they belonged to the world of Western medicine. Asharie called on his colleagues to conduct a trial of a Javanese remedy against *katarrhalen icterus* (inflammation of the liver, hepatitis), namely 25 living *pediculi capitis* (headlice) in a piece of ripe banana.[76] On the one hand, he was utilising Latin, even for headlice, on the other he asked his colleagues to seriously consider a nonsense remedy. This case shows the equivocal position of the *dokter djawa*. Si Moro (1894:32) employed the Latin term *venaesectie* to describe how a *dukun* collected a few drops of blood by pricking the nose of a child with a thorn.

There were also pragmatic native doctors. For example, Permadi (1915:9-15) advised his colleagues to monitor the *dukun* during a circumcision and to make sure that both the *dukun*'s hands and the surgical field were clean and that the boy's penis was examined for abnormalities. Samir (1909:19-21) described the *dukun bayi* in his article as a magician wielding hocus pocus, but pointed out the extenuating circumstances where even in modern, well-equipped maternity clinics the new mothers did not always have it easy: 'While nowadays even in excellently equipped maternity clinics there are still cases of febris puerperalis

74 Intestinal and skin diseases: Kardjo 1896:78-9; Mohammad Dagrim 1899:22-4; Renong 1893:73; Moehali 1895:12-3. Obstetrics: Soeriadarma 1896:10-2.

75 *Tijdschrift voor Inlandsche Geneeskundigen* 1-5 (1893) inside back cover.

76 *Tijdschrift voor Inlandsche Geneeskundigen* 10-2 (1902):31, under the heading Kleine Mededeelingen [Short Reports].

found, it is hardly surprising that *dukun* with their hocus pocus and especially with their disinfected fingers do so much damage to their sisters'.

These case reports come from the *Tijdschrift voor Inlandsche Geneeskundigen*. The *dokter djawa* who published in Dutch must have felt attracted to the West. But even within this group, there was a variety of views on the *dukun*.

CLOTHING

Around 1900 the indigenous elite began to feel the need to wear European clothing more often, but that was not permitted in public. One was expected to wear the clothing appropriate to one's own ethnic group. A native was not meant to dress like a European, and a Chinese was not allowed to cut off his queue (Vanvugt 1988:40). In 1902 a correspondent from Surabaya wrote indignantly in the newspaper about a *dokter djawa* who dressed as a European: 'It is not clear to me which regulation allows him to do that'.[77] In the same year a *dokter djawa*, Raden Moekadi, submitted a request to permit native doctors to wear Western clothing with a traditional headdress.[78] In response, the government consulted its advisor Snouck Hurgronje. Because traditional dress varied in the indigenous society and was subject to change, he felt that natives could wear European clothing. It was after all more practical and looked more civilised: 'Natives who have undergone a Western education are starting to be embarrassed about their dress, which inadvertently, especially in European society, is associated with the image of a lesser civilisation and a lower rank in society'. He advised the government to inform Raden Moekadi that it had no objection to the inclination of *dokter djawa* and other native officials to dress more or less as Europeans and that no separate stipulations were required for this.[79] The government adopted his recommendation in its entirety.[80]

Native doctors took advantage of this possibility and stated why they wanted to wear Western clothing: 'Partly, discarding native clothing is intended to escape from the often ill-mannered treatment by the European

77 *Het Nieuws van den Dag voor Nederlandsch-Indië* 4-3-1902, p 3, 'Over het paard getild' (Swollen head).
78 Circular from first General-Secretary Paulus 2-6-1903 no. 1844, *Bijblad* 5941.
79 Letter to director of Education, Religion and Industry 26-10-1902, Gobée and Adriaanse 1956:1041-5.
80 Circular from first General-Secretary Paulus 2-6-1903 no. 1844, *Bijblad* 5941.

personnel of railways, trams, etc.; also, European clothing is more practical for doctors' (Apituley et al. 1910:14). Others, such as J. Westplat (1913), ascertained that native doctors started dressing in European fashion because in their national dress the less educated native officials looked down on them. In European clothing they could move more easily in decent European circles where they were appreciated as men with refinement. Wearing Western clothing does not have to be viewed as taking the side of the colonial oppressor; the first president of Indonesia Soekarno was proud of wearing Western clothing. He ridiculed every native who still wore the traditional *sarong* by saying that he looked like a woman (Gouda 1998:245). The photo of *dokter djawa* Samgar (see p. 115) shows that not all native doctors preferred Western clothing.

Over time, the students' clothing also changed; around 1910 they wore trousers under their white coats rather than a *kain* and a black jacket.[81] Apparently, the fear that wearing Western clothing would lead to estrangement between the native doctors and their fellow countrymen had disappeared. The members of the Commission charged with the reorganisation of the Civil Medical Service thought differently in 1908: '[T]o help with the lifting up of the indigenous people, he [the *dokter djawa*] had to remain native, if not in his world view then in his lifestyle, his manners, his physical appearance, even in his clothing' (Bijker et al. 1908:75).

The native doctors wore Western clothing to escape from their position between two cultures. The next step was aiming for the same title as the Netherlands-trained physicians. This required an extension study in the Netherlands.

STUDY IN THE NETHERLANDS

In 1899 *dokter djawa* Abdoel Rivai departed for Utrecht, where Eijkman, the former director of the *dokter djawa* school, was a professor. He was allowed to attend lectures but not take exams. When he discovered that doctors from the Dutch West Indies were allowed to do so, he submitted a request to the government – supported by the MP C.Th. van Deventer – to be granted the same rights as the doctors from the West Indies. His request was sent to the East Indies for advice (Sardjito 1936:22-3). It received several negative evaluations: from the head of the Medical Service, from the

[81] Letter from director of STOVIA to head of Medical Service 28-6-1913, Van Dijk 1997:59.

Bond van geneesheeren in Nederlandsch-Indië, and from the Vereeniging tot Bevordering der Geneeskundige Wetenschappen in Nederlandsch-Indië (Physician's Federation in the Netherlands Indies).[82] According to them, the request was apparently unfair to Dutch students who followed a much more rigorous course. There were also doubts about whether the native doctors were capable of following a university course. In addition, the request was considered unnecessary because the native doctors were already fully qualified in the Indies.[83] Despite protests from the Indies, Parliament carried the amendment to the act;[84] from 1904 native doctors were admitted to Dutch universities (*Ind. Stb.* 1904 no. 487). The Bond van Geneesheeren spoke of 'a slap in the face of Dutch physicians'.[85] Abdoel Rivai had not waited for the outcome of the procedure; he went to Ghent (Belgium) to study, where he was awarded a doctorate. The native doctors had to pay for their course in the Netherlands themselves at first; in 1911 the Max Havelaar Foundation was established to grant subsidies to promising upper-class native men to study at institutes of higher learning in the Netherlands pending the establishment of a university in the Indies itself (Gouda 1995:86).

When Abdoel Rivai announced his plan to study in the Netherlands, his family and friends responded negatively. A few years later the attitude changed, and the indigenous society had a much more positive view of the Netherlands. In addition, the pioneers had informed them that they were better treated in the Netherlands than by the Dutch in the Indies (Abdoel Rivai 1906). The STOVIA graduates were shown respect; according to some their heads were turned from all the attention.[86] As showpieces of the ethicists, they visited the homes of the elite such as the MP Van Deventer. They attended meetings of the illustrious Indies Society,[87] where they met ministers and MPs. Sometimes they were invit-

82 Respectively, Roll 1909:65, note 1; *Jaarverslag over 1903* 1904:xv; Bijker et al. 1908:68.

83 Sardjito 1936:22-3; *Jaarverslag over 1903* 1904:xv; Bijker et al. 1908:68.

84 *Handelingen TK* 1903-04, meeting 27-4-1904, 1576-7. Radjiman and C.R. van Joost, both *dokter djawa*, had sent a supporting petition to Parliament.

85 *Hoofdbestuur* 1912:26; Van Effen concluded from the equal treatment that the government had little regard 'for our science and our art', 1905:37-48. *Het Nieuws van den Dag voor Nederlandsch-Indië* 16-6-1915, p. 2 copied a report from the *Bataviaasch Nieuwsblad* in which Senior, an anonymous critic, protested the admission of native doctors to universities in the Netherlands.

86 Bijker et al. 1908:77: 'Everything colluded to delude him into believing that only the name differed a little; in essence he considered himself equal, except for a formal step'.

87 The first time was on 22-10-1907; the chair introduced with pride Mas Boenjamin, Mas Asmaoen, Abdoel Rivai and the Tehupeiory brothers, De Vogel 1907:1.

ed to be guest speakers: W.K. Tehupeiory in 1908 was the first Moluccan and Radjiman in 1911 was the first Javanese at the Indies Society, as was J.E. Tehupeiory at the 30th Nederlandsch Taal- en Letterkundig Congres (Netherlands Language and Literary Congress). The Tehupeiory brothers had an interview with the minister of Colonies, A.W.F. Idenburg, and handed him a list of suggestions for improving STOVIA. [88] The minister promised to contact the governor-general about it.[89]

own society and periodical

From 1883 a few *dokter djawa* became members of the Vereeniging tot Bevordering der Geneeskundige Wetenschappen in Nederlandsch-Indië. In 1902 it was decided that the Vereeniging would be purely medical from then on. In his annual speech, the chair confirmed to his regret that veterinarians could no longer be members, but he kept quiet about the fact that *dokter djawa* could only be associate members from then on. Strange because *dokter djawa* as doctors suited the medical character of the Vereeniging, and precisely in that year improvements were implemented in the training programme. Perhaps the idea was to keep the Vereeniging purely European.

A few years later, in 1911, the native physicians established their own organisation, the Vereeniging van Inlandsche Geneeskundigen (Society of Native Doctors), to promote the intellectual and social interests of its members as well as public health.[90] In his retrospective at the 25th anniversary, W.K. Tehupeiory (1936:4) specified the following motives for its establishment: the meagre salary of the native doctors, the discourteous treatment by both their European and native superiors, and the general discrimination against natives in society. Therefore, as educated natives, they needed a centre to discuss important matters and prepare reforms. The society had its own publication, the *Orgaan der Vereeniging van Inlandsche Geneeskundigen* (Organ of the Society of Native Doctors); later the word '*Inlandsche*' would be replaced by '*Indische*'.[91]

On the one hand, the native doctors now had the right to obtain a

88 According to Poeze 1986:60 only J.E.; according to Keppy 2004:165-7 both brothers.

89 Letter from W.K. Tehupeiory to all alumni, Keppy 2004:165-7.

90 Accredited by GB 29-9-1911 no. 58, *Vereenigingen* 1921:550. The plan for a society like this originated in 1908, W.K. Tehupeiory 1936:4.

91 The change was brought about at the same time when the name of the school was changed in the same way. This was necessary because from 1913 all races were admitted.

Dutch physician title in the Netherlands; on the other, they were not taken seriously by their European colleagues in the Indies. An obvious reaction to this situation was to establish a separate society of their own. One step further was to participate in the nationalist movement.

NATIONALISM

On 20 May 1908 Boedi Oetomo was established at STOVIA. The foundation date has gone down in history as the start of Indonesian nationalism (Bosma and Raben 2008:318). The current museum of the nationalist movement, Museum Kebangkitan Nasional, is housed in the STOVIA building. The initiative to set up Boedi Oetomo came from Mas Wahidin Soedirohoesoedo, a retired *dokter djawa*. In 1906 he travelled all over Java to convince higher- and lower-ranking native officials of his ideas. First of all, he wanted to establish a study bursary for Javanese children (Boedi Oetomo 1917:321-2). He believed that the Javanese could raise themselves up through Western education and strengthening their own culture. His ideas resonated with the students of STOVIA. The establishment of Boedi Oetomo gave STOVIA the reputation of an institute where the students could develop their nationalism. In an interview with Hans Beynon, various interviewees stated that at STOVIA they experienced what was called 'the Indonesia-feeling'.[92]

Participation in the nationalist movement could also be problematic as the example of Tjipto Mangoenkoesoemo reveals.[93] After his exile to the Netherlands in 1913 because of nationalist activities, he returned to the Indies in 1914. He hoped to be able to take up his medical practice in Surakarta again. The local Islamic press welcomed the idea of a doctor in town who would care for the poor patients, but with his reputation Tjipto attracted few paying customers. He unsuccessfully attempted to become the personal doctor of the *mangkunegara*;[94] the resident also refused to give him a place on the medical staff to combat the plague (Van Dijk 2007:463-4). By choosing for the nationalist movement, the ambivalent position of the native doctors was highlighted: while one

92 Citation from Aziz Saleh, minister in various cabinets under President Soekarno. Other interviewees were Johanna Masdani-Toemboean and Sapoean Sastrosatomo, respectively, in Beynon 1995:97, 33, 138.

93 Originally he was called Tjipto.

94 One of the four rulers in the Principalities.

Bust of Tjipto in front of the hospital in Jakarta bearing his name (photo J.H. Peters)

Bust of Soetomo in front of the university named after him in Surabaya (photo J.H. Peters)

party had high expectations of Tjipto, he was persona non grata for the other.

STATUS OF GRADUATES

STUDENTS' BACKGROUNDS

The management of STOVIA divided the students into three groups according to their origin: high, middle and low. The native doctors belonged to the middle category, as did teachers, assistant-district heads, *mantri* and vaccinators.[95]

	1875 - 1884		1885 - 1894		1895 - 1904		Total
	Students	**%**	**Students**	**%**	**Students**	**%**	
High	10	7	46	18	90	27	146
Middle	22	15	97	38	159	48	278
Low	115	78	112	44	83	25	310
Total	147	100	255	100	332	100	734

Table 6.2. Social background of students 1875-1904
(*Jaarlijksch verslag STOVIA* 1906:appendix 10)

In the 'high' category were the sons of important officials such as district heads. In absolute terms, there were few students in this group, but their percentage rose in the 1875-1904 period. Gradually, the training programme seemed to be gaining in popularity among the elite, the *priyayi*. The granting of the *payung* in 1882 may have been a factor in this. In addition, the only students being admitted now had attended the European primary school, and they were by definition from the upper class of the population. These students moved down the social ladder compared with their fathers, who belonged to the 'high' category. As relatively more sons from the high category applied for the medical training programme, this suggests that the status of native doctors rose over time to the upper limit of the middle category.

95 *Jaarlijksch verslag STOVIA* 1906:appendix 10.

In the 'middle' category belonged the sons of intermediate-ranking officials such as *dokter djawa* and teachers. The proportion of students in this category rose during the 1895-1904 period to almost half.

In the 'low' category were placed the sons of minor officials and private individuals such as writers and village heads. Students from this category thus rose up the social ladder. The proportion of this group declined strongly over time from ¾ to ¼, probably due to the higher admissions criteria in the later period. The parents of these boys would not usually have had the money to give their sons the required preliminary primary school.

PERCEPTIONS OF THE GRADUATES

Those are the facts so far. The authors of sources perceived the situation differently. Raden Mas Margono Djojohadikusumo wrote in his memoirs about the STOVIA students' background: 'In my youth, the *dokter djawa* school or STOVIA was always characterised as the school "for the poor people". Only less well-off parents sent their children to that school because of the free accommodation and training programme.' A bit later he even refers to 'poor beggars' (Margono Djojohadikusumo 1970:39).

Dormitory at STOVIA (photo collection KITLV 35818)

Later he repeated this: 'In my youth when I was still at primary school in Banyumas, the STOVIA was considered a "poor people's institute"' (Margono Djojohadikusumo 1970:129). The students were housed in a boarding school, where they slept in large dormitories on cots. This was very different from the other boarding schools for native children, such as the OSVIA or the teacher training colleges, where each student had his own large room with a bed, cupboard and desk (Margono Djojohadikusumo 1970:28, 129). When considering these comments, we must remember that Margono, who attended the OSVIA (Margono Djojohadikusumo 1970:13), came from an impoverished Javanese aristocratic family and was kin to the sultan of Yogyakarta (Margono Djojohadikusumo 1970:6, 12). He thus belonged to the 'high' category.

Priyayi were generally administrators, civil servants. Their sons often went to the OSVIA. The choice of a practical career such as a doctor did not occur to the parents of Raden Soetomo, but after his mother had a dream, he went to STOVIA after all. His friend Mas Soeradji also ended up there after he was refused admission to the OSVIA (Van der Veur 1987:33). In the biography of Raden Mas Tirto Adhie Soerjo, who started at STOVIA but never finished, Pramoedya Ananta Toer wrote that a 'Raden Mas' rarely wanted to become a doctor. The higher nobility attended the OSVIA as a matter of course: 'That was self-evident, because a doctor had to be subservient, while a civil servant was in charge', according to Pramoedya's clarification.[96] Although this assertion can be shown to be incorrect (in the period 1875-1904 there were 47 students at STOVIA with the title Raden Mas),[97] it speaks volumes about how the *dokter djawa* were perceived. The municipal physician De Vogel (1906:37) also ascribed the lack of popularity of the medical course among the higher class to the subservient attitude required of the doctor, even towards people from a lower social class:

> Undeniably, the desire to study medicine is not widespread among the indigenous nobility, and they currently display a certain reluctance to allow their sons to study to be a native doctor, who as I myself have heard them say 'will not achieve anything more than the rank of assistant *wedono* and for their entire life be the slaves of any coolie who claims to need their help'.

96 Pramoedya Ananta Toer 1988:33.

97 *Jaarlijksch verslag STOVIA* 1906:appendix 11.

On the one hand, both European and native authors of sources looked down on the *dokter djawa* because they came from a lower class than the *priyayi*. On the other, they were criticised because they apparently put on airs and behaved like *priyayi*. In a talk with *dokter djawa* Raden Goeteng Taroenadibrata, Governor-General A.W.F. Idenburg said that some of his non-noble colleagues had become arrogant: they did not want to acknowledge their parents and ignored their own fathers because they were only simple servants (Goeteng Taroenadibrata 1926:286). Idenburg exaggerated grossly here. In total, only three sons of servants were admitted as students in the 1875-1904 period, of whom one obtained a diploma (*Jaarlijksch verslag STOVIA* 1906:appendix 10). Others, such as the board of the Bond van Geneesheeren, accused the *dokter djawa* of lacking *savoir vivre*, which was expected of the *priyayi*. The board ascribed this to the fact that many were sons of policemen, orderlies and similar lowly trades (*Hoofdbestuur* 1912:27, note).

The government advisor Snouck Hurgronje understood why a *dokter djawa* did not succeed in achieving the living standard expected of the *priyayi* class:

> In education the native doctors stand far above the majority of native officials; their rank remains the lowest, irrespective of years of service and merit, and their income lies far below the criteria imposed by association in the *priyayi*'s world. […] Although, according to the statements of many European physicians, in knowledge they are not far below the average European physician, they have to raise their children as ordinary village children for lack of money.[98]

Snouck Hurgronje felt that native doctors were dissatisfied with their lot. They saw their contemporaries progressing in rank and income although they were much less well educated. This led them to carry out their jobs with increasing reluctance.[99] A *dokter djawa* might be better educated than most native officials, but he still occupied a low rank in the civil service. This was apparent at official events like the January 1st celebrations or Lebaran, the end of the Islamic month of fasting, when all native

98 Letter to director of Education, Religion and Industry 21-3-1898, Gobée and Adriaanse 1956:1040.

99 Letter to director of Education, Religion and Industry 21-3-1898, Gobée and Adriaanse 1956:1040-1.

officials had to congratulate the assistant-resident or the regent. *Dokter djawa* Raden Goeteng Taroenadibrata (1926:283) explained that there were only chairs for the *patih*, *wedono* and *jaksa*. The others, including the *dokter djawa*, had to sit on the ground. Between the lines we can read that he found this denigrating for a *dokter djawa*. In the twentieth century the government wanted to abolish this discrepancy, but it persisted. In 1906 the governor-general emphasised again in a circular that this improper discrimination was no longer in fashion.[100] Some elderly *dokter djawa* preserved this tradition, such as the retired Mas Wahidin Soedirohoesoedo, who in 1908 still refused a chair next to the regent of Serang, Pangeran Aria Achmad Djajadiningrat, no matter how hard he tried to offer it to him (Djajadiningrat 1936:244-5).

We note that the perception of the status of the *dokter djawa* was lower than the status based on the classification by the management of STOVIA. The fact that many authors of sources came from the high *priyayi* class is the likely explanation for this.

difficulty fitting in

It was not easy to incorporate the *dokter djawa* in either the European or the native civil servant hierarchy. Since 1875 Dutch had been the language of instruction at the *dokter djawa* school, and from 1889 a good mastery of Dutch was an admission criterion, but in practice hardly any European official spoke Dutch with the graduates, and not with the *dokter djawa* nor with the native heads who were fluent in Dutch. The tea planter Karel Holle deplored the fact that some European officials considered speaking Dutch with natives beneath their dignity (Van den Berge 1998:199). Many *priyayi* were proud of their mastery of Dutch and found it awkward to speak formal Javanese to a European civil servant who barely spoke the language and often answered in Malay (Sutherland 1979:37). This was apparently so common that the first general-secretary in 1890 sent out a circular on behalf of the governor-general, in which all European officials were urged to speak Dutch with native officials who had been educated in it at government expense.[101] The circular had insufficient impact because in 1898 Snouck Hurgronje advised the director of Education, Religion and Industry to remind the European

[100] Circular 3-4-1906 no. 974, *Bijblad* 6496.
[101] Circular 10-9-1890 no. 2198, *Bijblad* 6496.

W.K. Tehupeiory and his family on Bangka around 1915 (photo collection IISG, BG C 16/57)

administrators regularly that they must treat the native doctors in accordance with their education and development: 'In that respect, many administrators fail worryingly in their duty when they treat the *dokter djawa* with no more respect than the lowliest village inhabitants, display irritation when they are addressed in Dutch and such like'.[102] European officials continued to respond with annoyance when a *dokter djawa* dared to speak to them in Dutch. Therefore, a new circular was issued in 1906 in the hope of repressing this vile custom once and for all.[103] It seems the habit could not be eradicated as Stokvis-Cohen Stuart (1931a:31) confirmed several years later: 'It is only a short while ago that Europeans would not tolerate the rudeness of a native addressing them in Dutch, or as something unbecoming'.

The problems were not restricted just to the Dutch language; incorporating native physicians with a Dutch medical diploma in the Civil Medical Service led to unanticipated problems for the government.

[102] Letter 21-3-1898, Gobée and Adriaanse 1956:1041.
[103] Circular 3-4-1906 no. 974, *Bijblad* 6496.

Which position should these natives be given and where did they belong in the two social worlds? The career of Mas Asmaoen, one of the first native physicians who graduated in Amsterdam, illustrates this dilemma. In 1907 he submitted a request to become a health officer. It took an amendment in the law before he could become the first native health officer. However, his career in the army was sabotaged by the refusal of the Dutch officers to treat him as an equal. He was transferred to New Guinea, became ill and returned permanently to the Netherlands, where he died in 1916 (Poeze 1986:57).

His colleague W.K. Tehupeiory was legally classified as European after his return to the Indies, and he started work as a European physician in government service on Bangka (Augustin 1914:3). It can hardly be a coincidence that Bangka was chosen. It seemed that the government wanted to keep 'difficult' cases like Tehupeiory and Asmaoen as far away from Java as possible, in areas where the official hierarchy was less strict than in the centre of the colonial empire.[104] N.F. Lim, a physician trained in the Netherlands, was the municipal physician in Semarang. When the function of the longest-serving municipal physician on Java became vacant, the position was given to L.J. Eilerts de Haan, although Lim had served longer as municipal physician.[105] It is likely that Lim's Chinese background affected this choice.

While the government found it awkward to assign native physicians with a Dutch diploma to a 'European' posting in the Civil Medical Service, some native doctors experienced problems with being considered part of the native civil servant corps. For example, a *dokter djawa* complained in 1895 to a European physician that he was obliged to contribute to the regent's parties and attend them (Bijker et al. 1908: 74). He was not the only one who wanted to distance himself from the native official hierarchy. The government advisor Snouck Hurgronje wrote that *dokter djawa* sometimes 'give great offence with their deliberate contempt of indigenous forms, their arrogant attitude towards native administrators, their exclusive search for European society while avoiding

[104] But even there highly educated Indonesians were discriminated against. The future professor W. Wertheim described how he was advised in 1930 in the Lampongs, his first station in the Indies, not to make the acquaintance of a native lawyer, who had graduated from Leiden. The latter was not allowed to be a member of the Society in the Lampongs, although in Leiden he had been president of the students' club, Wertheim and Wertheim-Gijse Weenink, 1991:146.

[105] Letter submitted by W.F. Lim, *Bulletin van den Bond van Geneesheeren in Ned.-Indië.* 14:61-3. W.(F.) must be a typing error, elsewhere he is listed as N.F. Lim or Lim Njat Fa.

the *priyayi*'s' (Boeka 1904:1007). Some native physicians like J. Wesplat and W.K. Tehupeiory blamed the native heads instead. According to Westplat, some colleagues deliberately withdrew from meetings with native officials for fear of the regents who would make their lives miserable (Augustin 1914:15). Tehupeiory (1909:925) felt that 'the native doctors were often treated improperly by conservative heads' and that 'this example was copied by lesser gods'. According to him, the underlying cause of the friction between the *priyayi* and the native doctors was the native heads' fear of losing their influence over the population. Because the native doctor was directly subordinate to the European head of the local administration, he was independent of the native head: 'It could give the population the impression the aristocracy had lost their power'. Tehupeiory's analysis is correct: more and more natives were obtaining posts in the native administration because of their education and no longer because of their birth. The power of the *priyayi* was being challenged and by more people than just the *dokter djawa* (Van Niel 1960:28-9).

REORGANISATION COMMISSION

There had long been objections to the fact that the Civil Medical Service and the Military Medical Service were incorporated in one organisation. In reality, the Civil Medical Service was subordinate to the Military Medical Service, which no longer suited colonial policy. The ethical policy promoted being expressly concerned with the health and welfare of the population. In 1906 the Indies government created a commission to prepare a reorganisation of the Civil Medical Service. This Commission had a clear idea of the position of the native doctors. The medical assistance given to the population must in principle be carried out by native doctors. The European civil physicians would ultimately disappear. The native doctors must be able to cure the most common diseases as quickly as possible to limit the loss of labour. Knowledge of these diseases was sufficient to start with; depth and specialisation were concerns for later. Difficult cases would be referred to the hospitals. The native doctors were also useful during epidemics and as mediators between the people and inspectors. Other significant aspects were that they were cheaper than European physicians, knew the language and customs, and could better withstand the effects of the climate and the monotonous life in the

interior (Bijker et al. 1908:71-2). The Commission did not yet consider the native doctors suitable as supervisors and thus not for the post of adjunct-inspector (Bijker et al. 1908:23).

The Commission formulated not only a vision of the future but also evaluated the current training programme and the graduates. STOVIA was described as a 'half-hearted scientific training programme' and should be condemned as such (Bijker et al. 1908:73). The stricter criteria led to higher drop-out rates, and gave the graduates inflated egos (Bijker et al. 1908:75). The excessive power of the director of the school, who could impose his personal views, would have to be curtailed. The high number of dismissed students could probably be ascribed to his personal sympathies and antipathies. Therefore, a supervisory commission would have to be established (Bijker et al. 1908:83-4).

The Commission had clearly discerned the problematic position of the native doctors: their low salary, the frequent transfers, which always incurred additional expenses and made it impossible to establish a private practice, the offensive situation of unequal pay when taking over duties for the Civil Medical Service; also, the unfair binding agreement prescribed they had to pay back the entire fee if they left government service before the specified interval had expired, regardless of their number of years of service (Bijker et al. 1908:76-8). The Commission could understand why *dokter djawa* entered private service. In the government service they earned after 20 years the maximum sum of *f* 150 per month, while private companies paid *f* 300 and more. As it was not and should not be STOVIA's aim to provide private companies with cheap doctors, the Commission felt that the government would have to pay them better. What the companies paid was not feasible, but a maximum of *f* 250 after 12 years of service should be possible (Bijker et al. 1908:143).

Despite this insight, the Commission judged that natives were in fact unsuitable for studying science as they had little respect for the truth (Bijker et al. 1908:70). The level of the training programme should be less scientific; the graduates must remain native in their lifestyle, conduct and appearance, and especially their clothing (Bijker et al. 1908:75).

REACTIONS

On the one hand, the analysis and vision of the future of the reorganisation Commission were well argued, but, on the other, it made un-

necessarily harmful remarks. The latter led to some emotional reactions such as that of the former director of STOVIA Roll, who crushed these proposals.

When the report from the reorganisation Commission appeared, Roll had just resigned as director of STOVIA and had departed for the Netherlands. He did not agree at all with the concepts and proposals, which would not only have destroyed his life's work but also the future of 'his' boys. He contacted the professors of the University of Amsterdam, who declared that they had had positive experiences with the native doctors who had already obtained the Dutch physician title from them (Roll 1909:14-6). Their response was a major support for Roll. Soetomo would later say that they had wiped the floor with the report (Van der Veur 1987:83). Then Roll published a brochure: *Is reorganisatie van de School tot Opleiding van Inlandsche Artsen te Weltevreden nogmaals noodig*? (Is reorganisation of the School to Train Native Doctors in Jakarta still needed?). He wrote that it was premature as the reorganisation Commission did not want to wait for the result of the 1900 reforms, but was already proposing new improvements (Roll 1909:13). He fought fiercely against lowering the level of STOVIA. He suspected that C. Winkler prepared these proposals; he had not been able to realise these suggestions as Civil Medical Service inspector but had now grasped the opportunity as member of the Commission (Roll 1909:4). In his brochure Roll did not avoid the confrontation. With his remark that he stood behind the 'awakening Indies', thus supporting the young nationalists and their call for higher education in their own land, he added fuel to the fire (Roll 1909:8).

Nor did the native doctors remain silent. First, W.K. Tehupeiory unambiguously rejected the proposal from the reorganisation Commission to lower the level of education at STOVIA. The Commission proposed that the native doctors would refer difficult cases to a hospital, but did not take into account the transport costs and the fact that an average native would never consider going to a hospital. The native would thus ask for assistance from a *dukun*, and slowly but surely the European medical aid would become discredited. He concluded with an appeal to the government not to heed the Commission's advice: 'Now that in all corners of the Indies the urge to develop oneself is steadily increasing, now that the government is attempting to meet that need by opening more educational institutes for better qualifications, it cannot be considered sensible to take away the sole institution of middle and higher education

for the natives in the Indies' (W.K. Tehupeiory 1909:922-8).

Eight native doctors in the Netherlands jointly published a brochure in 1910, *Eenige opmerkingen naar aanleiding van de voorstellen tot reorganisatie van den civiel geneeskundigen dienst in Nederl. Oost-Indië* (Some remarks in response to proposals to reorganise the Civil Medical Service in the Netherlands East Indies).[106] Their course of study in the Netherlands allowed them to ascertain that the practical training at STOVIA was better than that in the Netherlands, but the theoretical level needed to be raised. In particular, in the healing of difficult cases, the native doctors could impress the population 'that has little or no faith in European medicine'. They considered several of the Commission's proposals as offensive, such as the one in which the housekeeper of a European civil servant was entitled to free medical care but the second wife of a native civil servant was not, and the proposal to treat Europeans at home but not natives, even though poor Europeans sometimes also lived in the kampong. The supposition that with free choice of doctors irregularities would only be found among natives and not among (Indo-)Europeans, and the idea that only Europeans needed to go on leave while natives did not seemed expressions of discrimination to them. The remark that the native has less respect for the truth than a Westerner angered them: 'The Commission knows nothing of the intimate upbringing in indigenous households; similar virtues are taught there as in European ones; our and their morals do not essentially differ' (Apituley et al. 1910:17-8). They felt medical assistance given by well-trained native doctors was the most sensible manner to introduce European medicine to the population. Finally, they thanked Roll for his efforts on behalf of STOVIA. With their brochure they hoped to influence the discussion in the Lower Chamber with the aim to retain STOVIA just as it was.

The brochure occasionally employs a strong tone; the discriminatory remarks in the reorganisation Commission's report were noted by the authors. This tone is striking for young men at the start of their careers, which could have been harmed by an overly critical attitude of an official body such as the reorganisation Commission. Perhaps their stay in the Netherlands, where they were treated as equals, had made them rather reckless.

106 The authors were the doctors H.J.D. Apituley, R. Tumbelaka and Dr. Abdoel Rivai; the junior doctors H.F. Lumentut and Ph. Laoh and the med. candid. Radjiman, R.M. Brenthel and Moh. Salih.

OUTCOME

The criticism of the reorganisation Commission's proposal to lower the level of STOVIA and especially the ethical spirit of those days had an effect: the level was preserved, and the medical section was even extended by a year to seven years. Subjects were added to the curriculum: dentistry, ENT, psychiatry (Von Römer 1921:204-5). In addition, a second training programme was established in Surabaya, the Nederlandsch Indische Artsenschool (NIAS, Netherlands Indies Doctor School). Both schools were open to all races and to women. Now that all races were admitted, the title of *Inlandsche arts* [native doctor] changed to *Indische arts* [Indies doctor] (De Waart 1926a:54). Thus, the name of the school in Jakarta became School tot opleiding van Indische Artsen [School for training Indies doctors], the abbreviation remained STOVIA. It was also possible to pay tuition to take the course. It can be assumed that admitting girls and non-natives to STOVIA was expected to reduce the shortage of physicians. It does raise the question of why this had not been done earlier. The graduates' salary was considerably increased; from now on the starting salary was *f* 150 and the maximum salary *f* 250 per month (*Ind. Stb*. 1910 no. 615). In addition, they were permitted to travel second class on the train and were entitled to first-class treatment when admitted to a military hospital (Augustin 1914:3-4). When there were enough native doctors, the intention was to abolish the European civil physician corps and transfer their duties to the natives. Given the increasing need for civil physicians, however, this would not be possible in the short term.[107] At least one person envisaged a rosy future: 'a Dutch person could be *dokter djawa*, a native could be European physician'.[108]

The Bond van Geneesheeren responded critically to the Indies government's proposal to create a second medical school in Surabaya and open it to all races. Prosperous Indo-Europeans and Chinese would never dream of letting their children study in the Indies, which would mean that the Surabaya training programme could only attract children of paupers, with a low level of morality and lacking 'almost entirely all good characteristics' required of a physician. Some would make 'a livelihood from abortions and turn adultery into recreation' (*Hoofdbestuur* 1912:26-

107 *Toelichting begroting* 1913, 1912: 3.
108 G.N. 1912.

8). The reaction of the Bond van Geneesheeren was so offensive that practically the entire European and native press was scandalised,[109] according to Abdoel Rivai several years later in his speech to the Volksraad (People's Council) (Bosma and Raben 2008:323-4). The members of the Lower Chamber also protested the manner in which the board of the Bond van Geneesheeren had talked about Indo-Europeans.[110] Others took a different view; they feared that many European children would obtain their medical diploma in the Netherlands after graduating from STOVIA and would settle down there. It was unfair that they obtained their qualification much more easily than the students in the Netherlands and then they were lost to the Indies (*Geneeskundige opleiding* 1911:11-5). The protests were futile because NIAS started up in 1913.

FEMALE STUDENTS

It is possible that Aletta Jacobs, the first female physician in the Netherlands, influenced the admission of girls to STOVIA. Certainly, during her world tour on 18 April 1912 she met Governor-General A.W.F. Idenburg. Her travel diary reveals that she had argued in favour of admitting girls to the doctor training programme.

> Also during the discussion of female doctors for the native women and of hospitals for these women, with exclusively female medical assistance and the training programme for female *dokter djawa*, His Excellency agreed with our stance much more than many of his officials with whom we had already discussed this issue. Until now, all indigenous girls who applied for the *dokter djawa* school were rejected, always with one or another excuse, but simply because the powers that be in that department overestimate the difficulty of teaching medicine together with young

[109] Among others, the chief editor of the *Javabode* (*Misplaatste zelfverheffing*, 10-10-1912) (Misplaced self-importance), who referred to a reaction in *Het Bataviasch Nieuwsblad*; also Keuchenius 1912 referred to it.

[110] They were J.G. Scheurer, former missionary physician in Yogyakarta, and W.H. Bogaardt, *Handelingen TK* 1912-3, respectively, in the meeting of 28-11-1912, 912 and in that of 29-11-1912, 929. In the *Nieuws van den Dag voor Nederlandsch-Indië* of 30-10-1912, the secretary of the Bond van geneesheeren 'rectified' this. The Bond had only meant that a physician's diploma in the hands of 'those originating from the lowest classes of the European society, belonging as it were to the fringes of this society, would present a danger to this colony', cited by Bogaardt. Minister of Colonies De Waal Malefijt said in response that he intended to issue his disapproval of the Bond's statements about Indo-Europeans. After this rectification, this was no longer necessary, *Handelingen TK* 1912-3, meeting of 2-12-1912, 978.

NIAS, now the Faculty of Medicine of Airlangga University (photo J.H. Peters)]

> men and do not sufficiently realise the desirability of having female doctors for the native women. (Jacobs 1913:425.)

While girls were indeed admitted from then on, they were not eligible for employment in the Civil Medical Service. They thus had to pay for their training programme themselves and arrange their own accommodations. A study fund was established to support them, the Vereeniging tot Vorming van een Studiefonds voor Opleiding van Vrouwelijke Inlandsche Artsen (Society to form a study fund for training female native doctors).[111] The applications for STOVIA from young women got

[111] Established by Charlotte Jacobs, the sister of Aletta Jacobs and apothecary in Batavia, the writer Marie Kooij-van Zeggelen and Elisabeth van Deventer-Maas, the wife of the MP and author of '*Een eereschuld*'. The fund was also meant to support the training of nurses. In her will, Charlotte Jacobs specified that the study fund would receive the usufruct of *f* 2000, De Wilde 2000:193.

Marie Thomas (second from left) in the women's hospital, in 1929
(photo collection museum Boerhaave, Leiden)

off to a slow start. In September 1912 the first female student, Marie Thomas, was admitted and two years later the second, Anna Warouw. Both came from the Minahasa. Marie Thomas would later become the first Indonesian specialist in gynaecology and obstetrics (Barten and Stolk 1987:222).

DRAWING UP THE BALANCE

To obtain insight into the results of the training programme, we have several sources available: the Colonial Reports, the report of the reorganisation Commission, the report on STOVIA for the 1904-1905 academic year, the first Almanac from STOVIA and the retrospective by A. de Waart, director of STOVIA, in the jubilee book for the years 1851-1926. Different numbers of students and graduates are listed. In addition, not everyone used the same systematics, and some changed their method of notation in the course of the 1875-1915 period (per academic year or per calendar year; including or excluding the *dokter djawa* who be-

came vaccinators). It is therefore impossible to find unambiguous figures.

According to the report on STOVIA for the 1904-1905 academic year, 725 students were accepted for the 31 courses in the period 1875 through 1905, on average 23 students per academic year. At the time of publication, 119 of them were still at the school, and of the remaining 606 students, only 156 had graduated, not even 26% (*Jaarlijksch verslag STOVIA* 1906:appendix 12). The premature drop-out (about 75%) was much higher in this period than in the previous one: in the 1851-1875 period, it amounted to 42%.

In his retrospective, A. de Waart reported the following figures: before 1890 only 10% graduated with a diploma, on average 5 per year. Because after that only applicants from the European primary school were admitted, 40% reached the finish line. After introducing the admissions exam in 1903 and the reorganisation of the course in 1902, 48.8% graduated (De Waart 1919: 91, 1926a:30-2). As director of STOVIA, A. de Waart may have painted matters in a rosy light, but even he admitted that despite the improvements, not even half of the students passed their final exam.

When contemplating these sad figures, we must remember that increasingly more graduates entered private employment. Of the 185 graduates in 1915, 125 were in government service and 60 in private service. The latter number was probably higher in reality because the government did not receive statements from all private companies. The reorganisation Commission's rather unusual complaint for the tropics that the native doctors would disappear like snow in the sun proved correct (Bijker et al. 1908:75).

ONCLUDING REMARKS

The *dokter djawa* school was established to replace the *dukun* by Western-trained, native doctors. It took until 1875 before people were convinced of the utility of well-trained native doctors for the Medical Service, and from then on the investments in the training programme were increased with some regularity. As its level rose, the graduates could be given more tasks. At first, the *dokter djawa* worked primarily as assistants to European physicians, but gradually they took over their tasks. The government employed them increasingly often as intermediaries between Western health care and the population. Some native doctors assumed this task volun-

tarily. The working conditions were much worse than those for other native officials, resulting in a growing flood leaving government service. The imposition of a binding agreement was a vain attempt to put a halt to this. Ultimately, the government trained more and more native doctors for the free market (the business community and independent practice) and fewer for its 'own' Civil Medical Service.

The ethical policy stipulated formally for the first time that the Netherlands had a responsibility to provide health care for the population. Because of this policy and the opening up of the Indies to business, increasing numbers of physicians were required, both by the government and by private companies. As this need could not be met, there was a continuous shortage. STOVIA was one of the rare possibilities for higher education for natives. It offered, along with a medical training programme, a possibility for emancipation, which suited the ethicists' philosophy well. The former director of Education, Religion and Industry, the ethicist Abendanon, considered STOVIA an acrostic of the words *Stuwkracht Tot Ontwikkeling Van Aanleg* (Stimulus to encourage development of potential).[112] The first STOVIA graduates who studied in Amsterdam confirmed the ethicists in their ideals. They assimilated completely with the Dutch: they were members of the Amsterdam students' union, got involved in various discussions about the design of the Civil Medical Service and married Dutch women. Through their years of residence at STOVIA, they grew used to a European environment. They furnished their houses in European style, they felt a need for European reading matter and music, and sent their children to European schools.[113] After W.K. Tehupeiory (1908:121) had given his lecture to the general meeting of the Indies Society in 1908, C.Th. van Deventer rejoiced that 'the spiritual evolution among the native population in the Netherlands Indies […] is not only well underway, it has advanced considerably to a certain end. […] [I]ts appearance must be the fruit of increasing civilisation'. Tehupeiory's lecture must have been proof for the ethicists that they were right.

[112] *Orgaan van Indische Artsen* 1919, no. 2:VII. Abendanon spoke the words during a meeting of the Indies Society in the Netherlands; the board of the Society of Native Physicians quoted him in their *Orgaan*. Abendanon used the term 'acrostic' rather loosely, as it refers to a poem in which certain, mostly the first, letters of each line or stanza form a word,.

[113] W.K. Tehupeiory 1908:115. I would like to thank here the late A. Visser who granted me access to his mother-in-law's letters, E.M. Lumentut-Keller. She was married to H.F. Lumentut, who was among the first group of Stovians who obtained their Dutch diploma in Amsterdam.

As usual with an emancipation there were also tensions, for the native doctors, for the native elite, for the government and for the European colleagues. The native doctors lived between two worlds. This was evident in their clothing. Originally, the government insisted that the *dokter djawa* wear native clothing to show that he, just like his patients, was part of indigenous society. In this vision, the *dokter djawa* was attached to carrying the *payung*, which was only allowed in 1882. Over time the native doctors, just like other natives with a Western education, wanted to wear Western clothing, which was permitted around 1900. The *priyayi* had a difficult relationship with native doctors because they were not part of the native official hierarchy but belonged to the Civil Medical Service, which was part of the European official structure. Many European administrators also did not know how to deal with the *dokter djawa.* They were natives but with Western educations, and they spoke fluent Dutch. In the beginning the *dokter djawa* assisted the European physicians, and some of the latter abused their power by making the *dokter djawa* do their work and by pocketing the allowances themselves. This caused tension. Over time the European physicians' tasks were transferred to their native colleagues. Many European physicians continued to feel that natives were incapable of working independently as doctors. The high level of education and the impossibility of working as a respected doctor led to STOVIA becoming a breeding ground for nationalism.

7

Pathetic tiny deeds, native midwives 1875-1915

In 1875 the government decided to provisionally close the midwives' school in Jakarta while awaiting a reorganisation. Shortly before that, the minister of Colonies, I.D. Fransen van de Putte, asked for alternatives because he did not want to abolish such an established institution so abruptly.

A FAILED PROPOSAL

Before the head of the Medical Service, B.E.J.H. Becking, prepared his advice about the midwives' course, he consulted H.J. Zembsch-de Klemp, the teacher of the now closed school, who worked as first municipal midwife in Jakarta. In addition, he asked G. Luchtmans for his opinion, as he was the Civil Medical Service inspector.[1] Becking's advice was adopted unchanged by the director of the Department of Education, Religion and Industry, C. Bosscher, in his proposal of May 1876.[2] Apparently, everyone was in agreement: it was important to restore the training of native midwives to prevent deaths and avoid the risks of the occasionally dangerous assistance of the *dukun bayi*. It was believed that the population would ultimately prefer to be helped by the Western-trained midwives, although that change would be a long time in coming in some regions. In the proposal a new school was envisaged, to which a maternity clinic would be attached. The concept was the same as that of the recently closed institute (*Historisch overzicht* 1898:40-1). The

[1] He was appointed in 1875 and came straight from Europe. It is striking that a person with no experience in the Indies was chosen.

[2] I did not consult the original documents, nor did Verdoorn 1941. We both based our ideas on *Historisch overzicht* 1898.

alternative of a training programme on site, proposed by the top officials in 1873, was now abandoned a few years later. It is likely that the government in The Hague dismissed it.

The proposal was turned down for financial reasons. It was decided to wait for a decision on the establishment of a civilian hospital in Jakarta. The midwives' school would be located nearby so that the students could gain practical experience there (*Historisch overzicht* 1898:39). The topic remained closed for a long time.

THE GRADUATES AND THEIR TASKS, 1875-1890

At the time of the provisional closure of the school in 1875, there were about 50 midwives in the archipelago, of whom 41 received a subsidy from the government.[3] Ten years later, in 1886, there were 45, of whom 26 had a subsidy.[4]

	Natives		Chinese		Europeans		
	free	**paid**	**free**	**paid**	**free**	**paid**	**Total**
26 with subsidy	368	182	23	46	3	110	732
16 without	148	137	0	19	0	58	362
Total	516	319	23	65	3	168	1094

Table 7.1 Deliveries assisted by native midwives in 1886 (*Historisch overzicht* 1898:29)

The 26 midwives with a subsidy assisted at a total of 732 deliveries, of which 394 were free of charge (on average 15 per person) and 338 for payment (on average 13 per person). Thus, they performed roughly equal numbers of free and paid services. Along with their subsidy, they

3 *KV* 1876:123 lists 93 midwives, which does not agree with the numbers in *Historisch overzicht* 1898:14 and *KV* 1887. It is very difficult to find reliable data for the number of midwives working without a subsidy. Their existence was not always known to the government and thus did not always appear in the records.

4 *KV* 1887 mentions 82 midwives, *KV* 1888 around 65. The *KV* for subsequent years only gives the number of midwives who received a subsidy. This is logical because midwives without a subsidy were not responsible to the government, making it difficult to obtain data about this group. In general, the numbers used here were recorded in the *Historisch overzicht* 1898, which seemed more realistic.

had an annual income varying from nothing to *f* 242.50. It is surprising that the midwife with the highest income still received a subsidy. Of the midwives without a subsidy, the data of 16 women are known; they assisted at a total of 362 deliveries, of which 148 were free of charge (on average 9 per person) and 214 for payment (on average 13 per person). From their practice they thus earned an annual income that varied from nothing to *f* 492. There is curiously little difference in the average number of paid deliveries between midwives with and those without subsidies. It is remarkable that the women without subsidies were prepared to perform free deliveries, although only for their fellow countrywomen. In general, the criteria for awarding the subsidy were not always clear and certainly not fair. That some control was exercised over it became apparent in 1876 when the subsidy of a midwife was withdrawn because she had sufficient income from her practice (*KV* 1877:133).

Just like in the preceding period, there were still too few midwives for such an enormous population. With or without a subsidy, they assisted mostly European and Chinese, along with native women.

RUN UP TO A NEW PROPOSAL

When reviewing the budget of the Netherlands Indies for 1886, the liberal MP E.B. Kielstra noted that urgent matters were sometimes ignored for financial reasons. One example he gave was the midwives' school, a useful and urgently needed institution, especially for the population, which had produced excellent results. The school was provisionally closed in 1875 while awaiting a reorganisation. Somewhat cynically, he remarked that people had been contemplating the reorganisation for over ten years.[5] The next day the minister of Colonies, J.P. Sprenger van Eyk,[6] replied that some authorities felt the money for the school was wasted because the natives did not ask for help from the graduates, and the Europeans employed them primarily as dry nurses. But he was prepared to include the necessary expense in the budget – it involved only

5 *Handelingen TK* 1885-6, II:399, meeting on 11-11-1885. Kielstra had been a military engineer in the Indies, and in 1882, at 38 years of age, he returned to the Netherlands after being in the Indies for 20 years. From 1884-94 he was an MP, Janny de Jong 1989:260. Later he was included with the ethicists, Van Niel 1984:33.

6 He was a minister (1884-88) in the conservative-liberal cabinet of Heemskerk. From 1872-84 he had worked in the Indies as an inspector of finances and as a member of the Council of the Indies.

a small sum – if someone could convince him that restarting the course was in the public's interest.[7]

Kielstra returned to this subject in the next year's budget review. According to him, the government should finally do something, and there should definitely be a midwives' training programme. Sprenger van Eyk repeated that he was prepared – like last year – to listen to any proposals from the Indies. He had not yet asked the Indies government directly about this because he had assumed that the head of the Medical Service would submit a proposal if he found it necessary. But now that the MP was so insistent, the minister wanted to ensure that he could report more about the issue next year.

Sprenger van Eyk asked the Indies government for information about the current state of affairs.[8] The director of Education, Religion and Industry, U.J.H. Noodt, asked for a postponement. The Civil Medical Service inspector, F.J. Cornelissen, was just about to start an inspection tour of East Java and Madura, and Noodt wanted to include these findings in his recommendation.[9] He received the requested reprieve (*Historisch overzicht* 1898:43). After ten years of silence, the midwives' training programme could hardly be called urgent.

In December 1887 Cornelissen reported to the head of the Medical Service, H. van Lokhorst, about his inspection tour.[10] He had found that European civil servants and private individuals in the interior would very much like to see the midwives' training programme restarted. The Chinese stated the same. But the native heads felt that the population would always call in the assistance of the *dukun bayi*, even if a certified midwife were available (*Historisch overzicht* 1898:44). Based on his experiences in other parts of the archipelago, the inspector concluded that the certified midwives were very useful for (Indo-)Europeans, Chinese and the wives of native heads and civil servants, but not for the population in the village. He did argue in favour of restarting the midwives' training programme, but not in the form of a boarding school as before, given the stories from the midwife Sariëm about the poor conduct of the students at the former school (*Historisch overzicht* 1898:45).

7 *Handelingen TK* 1885-6, II:399, meeting on 11-11-1885.

8 Dispatch 1-12-1886, lett.A1, no. 33/2082, *Historisch overzicht* 1898:39.

9 Letter 23-4-1887 no. 4147, *KV* 1887:109.

10 Letter to the head of the Medical Service 21-12-1887 no. 670, *Historisch overzicht* 1898:44; *KV* 1888:133.

In his recommendation to the director of Education, Religion and Industry, the Head of the Medical Service Van Lokhorst stated that the native midwives meant little to the population. He agreed with the inspector that their assistance was primarily favoured by the Europeans in the interior. As the government's request only referred to midwifery assistance for the native population, that was an end to the matter. If, however, the government meant that native midwives could also assist European and Chinese women in labour, then he was prepared to give advice.[11] Van Lokhorst was presenting himself in a very formal manner.

Two weeks after receipt of the recommendation from the head of the Medical Service, the director of Education, Religion and Industry, W.P. Groeneveldt, sent his advice to the Indies government.[12] He wrote that he favoured the position of the Civil Medical Service inspector over that of the head of the Medical Service. He argued for restarting the training programme, even if the graduates' assistance would not at first benefit the native population. He advised a trial without a boarding school, only in Jakarta, which would also accept European women (*Historisch overzicht* 1898:47).

And of course, the Council of the Indies was asked for advice.[13] It felt that the *dukun bayi* with their superstition and insinuations were persuading the population not to call on the midwives. That situation would not change anytime soon. The Council was in favour of European and Chinese women having access to proper midwifery assistance, especially in the interior, and proposed restarting the training programme at several sites in the archipelago. Preferably, *dukun bayi* or their blood relatives would be trained by a local physician, who would be paid a subsidy for this. When restarting the training programme, the Council felt strong administrative support would be essential, as it was with the vaccination programme (*Historisch overzicht* 1898:48-9). This probably referred to a certain form of compulsion. It was a strange remark for an official body to make.

In the meantime the Lower Chamber had been informed that a preliminary consultation had taken place with the Indies government, 'and shortly relevant proposals will be presented' (*KV* 1889:139). Ultimately, in March 1889 a response was sent from Jakarta to the minister of

11 Advice 15-8-1888 no. 1662/5, *Historisch overzicht* 1898:46-7.
12 Letter 29-8-1888 no. 8652, *Historisch overzicht* 1898:47.
13 Advice 14-9-1888 no. XVI, *Historisch overzicht* 1898:47.

Colonies, L.W.C. Keuchenius.[14] The government in The Hague thus received an answer two years later. In May the minister announced that he favoured restarting the midwives' training programme.[15] The brand new director of Education, Religion and Industry, P.H. van der Kemp, was asked to produce concrete proposals after consulting the Head of the Medical Service Van Lokhorst.[16] The latter was commissioned to prepare a purely practical training programme to which *dukun bayi* could also be admitted. The recommendation of the Council of the Indies was apparently well received in The Hague. In less than three months Van Lokhorst produced an elaborate plan for a training programme with practical and theoretical education in several schools. He rejected the option of a purely practical course because it would only train dry nurses. He considered it impossible to train *dukun*, given their prejudices, their superstitious nature and their generally advanced age.[17] Van Lokhorst will have realised that his proposal definitely did not match the commission from The Hague and thus had little chance of being realised.

The director of Education, Religion and Industry forwarded the advice from the head of the Medical Service in December 1889 to the Indies government with an accompanying letter, in which he expressed his disappointment with its less practical nature.[18] He had not succeeded in forging a compromise when talking to the head of the Medical Service. He preferred his predecessor's idea, a training programme on site where students trained with physicians at various locations in the archipelago. This form of training was applied to European midwives in the Indies (*Historisch overzicht* 1898:52-4). It was also the normal method of training in the Netherlands before midwives' schools were established (Van Lieburg and Marland 1989:300).

[14] Indies letter 5-3-1889 no. 376/1, *Historisch overzicht* 1898:39, 47.

[15] Dispatch from minister of Colonies 25-5-1889, lett.A1, no. 16/916, *Historisch overzicht* 1898:47.

[16] Letter from first general-secretary to the director of Education, Religion and Industry 31-7-1889 no. 1789, *Historisch overzicht* 1898:48, 51. Just the day before, Van der Kemp had been appointed director of Education, Religion and Industry. He was familiar with the position because he had been a secretary under Groeneveldt.

[17] Letter 23-10-1889 no. 1681/5, *Historisch overzicht* 1898:49-52.

[18] Letter from director of Education, Religion and Industry 10-12-1889 no. 12435 to GG, *Historisch overzicht* 1898:52.

TRAINING ON SITE

In the difference of opinion described above between the head of the Medical Service and the director of Education, Religion and Industry, the Indies government opted for the training programme on site, which better matched the commission from The Hague. It proposed to set up a trial.[19] The government in The Hague agreed to the proposal and an official regulation was issued, specifying the following:

a. nine European physicians – preferably six on Java and three in the Outer Territories – would be given the authority to train a maximum of 18 suitable native women to be midwives;
b. the instructors would receive a monthly subsidy of *f* 25 for the students' board and lodging during the training programme of two years, or at most three years;
c. the instructor would receive a bonus of *f* 1000 for each student who passed the exam;
d. a candidate is only allowed to sit for the exam after she has assisted at 10 normal deliveries under the supervision of a competent physician;
e. the students in special cases could be exempt from the requirement to live with the physician.[20] This requirement was included because of objections from the physicians (*Historisch overzicht* 1898:57), not with a view to allaying the suspicions of parents, although they complained many times in practice.

It was not considered wise to appoint physicians as instructors; they had to volunteer. Unlike the former midwives' school, the students did not receive a subsidy (*Historisch overzicht* 1898:55). The examination programme matched that for European midwives; only the theoretical part was simpler (*KV* 1891:133-4).

After all the discussion, a successor was finally established 16 years after the temporary closure of the midwives' school in the form of the on-site training programme, also known as the partial training programme.

[19] Indies letter 6-2-1890 no. 253/19, *Historisch overzicht* 1898:54-5.

[20] GB 21-5-1891 no. 3, *Historisch overzicht* 1898:55. The reorganisation Commission ascribed the realisation of the regulations from 1891 to the movement that arose in the Netherlands in 1897, in fact six years later, Bijker et al. 1908:262.

INSTRUCTORS

In practice it was not easy to find enough suitable physicians. Some had not done enough deliveries or were transferred. Of the nine physicians who offered to instruct, only seven managed to recruit suitable students (*KV* 1892:122). In 1897, 13 women were in the training programme: eight on Java (four with the civil physician in Kediri, H.B. van Buuren, and four with the missionary doctor in Mojowarno, H. Bervoets) and five with health officers in the Outer Islands (*Historisch overzicht* 1898:58). Little came of the frequently cited benefit of the new training method, a better distribution over the archipelago. The training sites in the Outer Islands were located exclusively on the Moluccas and those on Java, Kediri and Mojowarno, lay about 40 km apart.

The only criterion set for the instructors was that there be sufficient deliveries in their practice for their students. Knowledge of the vernacular was not required, although good communication between teacher and student was naturally essential. Van Buuren used the services of a *dokter djawa* as an interpreter when questioning *dukun bayi* in 1898 (Van Buuren 1898a:1). The communication with his students can never have been easy.

STUDENTS

In the 1892-1898 period, 37 students were accepted into the training programme. Eleven dropped out (two died), 13 completed the training programme, and 13 were still studying (*Historisch overzicht* 1898:57). When Van Buuren established himself as civil physician in Kediri in 1895, he struggled to recruit just four native women for the training programme. Two years later, in 1897, there were 10 candidates, then 20 in 1898, half of whom were Christian (Van Buuren 1898b:21-2). He ascribed this increase to a growing need for midwifery assistance. Most likely, the limited interest in 1895 was due to unfamiliarity with the partial training programme and with Van Buuren himself, who was at that time a newcomer in Kediri. In Mojowarno the missionary doctor H. Bervoets and his wife also found it difficult to recruit girls for the training programme, even among the Christians.[21]

[21] Mr. Bervoets (1898:381) gave a more optimistic impression of affairs than his wife; he would have rejected less suitable girls. As he stated this in his article to defend the on-site training, I tend to trust his wife more, Bervoets-van Ewijck 1897:169.

The students from the Outer Islands had better exam results than those from Java, where native girls rarely attended primary school (*KV* 1898:93). On the other hand, both Van Buuren and Bervoets had many Christian girls as students, and they were the ones who were educated. Although it was not an examination requirement, the students were capable of 'carrying out mechanically assisted deliveries' (*KV* 1898:93).

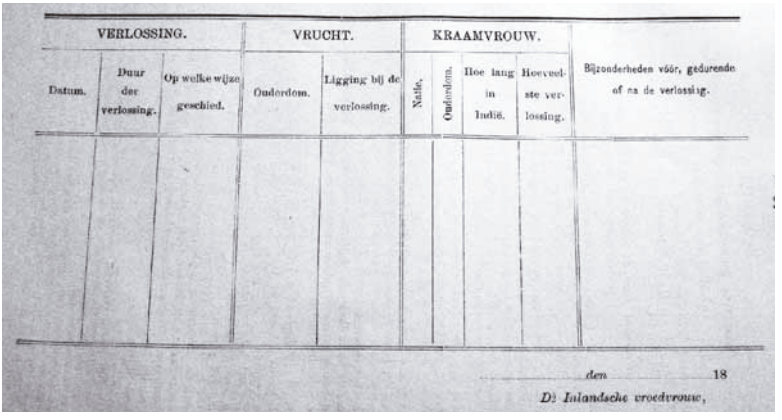
THE GRADUATES AND THEIR TASKS, 1893-1900

	1893	1894	1895	1896	1897	1898	1899	1900	Total
Java	1	2	4	0	1	5	4	0	17
Outer	0	3	1	1	0	2	3	2	12
Total	1	5	5	1	1	7	7	2	29

Table 7.2 Students who passed the exam in the period 1893-1900 (Bijker et al. 1908:263)

In 1893 the first midwife passed the exam who had been trained according to the new method. In 1900 a total of 29 women were awarded their diplomas. In addition, there were still 14 midwives from the previous cohort. In both groups some received a subsidy and some did not. For the graduates of the partial training programme, the subsidy varied between *f* 10 and the maximum of *f* 25 per month (*KV* 1898:93). For the previous cohort the subsidy ranged from *f* 5 to *f* 25; 11 of them received *f* 10. In addition, they earned an income varying from nothing to *f* 253.50; this latter sum was earned by a familiar name, Nji Astijem in Purwakarta. She assisted at a total of 17 deliveries, of which 5 were free. Most of her wages came from the 5 deliveries involving European women. One of her colleagues, Sankum in Amurang (Ambon), performed 127 deliveries; all except one were free. Her supplementary income amounted to *f* 25 from one delivery involving a European woman (*Historisch overzicht* 1898:appendix D).

The 7 midwives with a subsidy in the partial training programme assisted at a total of 167 deliveries in 1897, on average 24 each. Along with their subsidy they earned that year sums varying from nothing to *f* 77.50 (*Historisch overzicht* 1898:59). The 14 native midwives with subsidies who



VERLOSSING.			VRUCHT.		KRAAMVROUW.				
Datum.	Duur der verlossing.	Op welke wijze geschied.	Ouderdom.	Ligging bij de verlossing.	Natie.	Ouderdom.	Hoe lang in Indië.	Hoeveelste verlossing.	Bijzonderheden vóór, gedurende of na de verlossing.

den 18

De Inlandsche vroedvrouw,

Government midwives had to fill in this form every month (De Freytag 1899)

were trained at the school assisted at 483 deliveries in the same year, on average 34 each (*Historisch overzicht* 1898:appendix D). That their average and their wages were higher may be due to their greater experience and being better known among the population. They had been working longer as midwives after all.[22] Two graduates of the partial training programme did not want to be assigned a post by the government; they wanted to run a private practice only (*KV* 1899:121).

The graduates still had two options: assisting the native population or the Europeans.

> On the one hand thus: *poor* pay; hardly *any* supplementary wages; *opposition* from the *dukun*, who did not like having their work taken over; *opposition* from the population, which did not like abandoning its traditions – even if they are against its own interests – *very little* cooperation from the government. On the other, the European side, *substantial* income, *pleasant* treatment, *appreciation* of their work; it doesn't take long to realise which avenue they would choose! (Van Buuren 1898a:27-8.)

Van Buuren, the author of the quotation, understood their choice, but he still disapproved. The government would never achieve its goal like this, and in addition, they were taking the bread out of the mouths

[22] In 1910 Dutch midwives assisted at on average 110 deliveries per year, a much higher figure than in neighbouring countries, Marland 1995:67-87.

of European midwives (Van Buuren 1898a:28). Bervoets (1898:379) also resented the fact that the graduates went to work for Europeans, which meant they were no longer available for pregnant native women. Attracted by the generous salary and 'enchanted by the privilege of helping Europeans and associating with them more than their former fellow villagers', a gap widened between the Western-trained midwives and the population. A native woman in labour would not easily ask for assistance from a Western-trained midwife 'who was too elevated, someone noble, a "*mas*", with more refined manners than simple village inhabitants had'. According to Bervoets (1898:380-1), there was also the risk for native midwives who assisted European women in labour that 'her morality was exposed to assault'. There were Europeans who abused Javanese girls, who would never think of laying a finger on a European midwife.

COLLABORATION WITH THE TEACHER

Several practical cases reveal how the instructor and his students/former students worked together. G.J. Wijchgel, health officer in Saparua (Ambon), was once called to a delivery: 'As one of my former students was assisting at the birth, I left again and told her to call me immediately if something abnormal happened'. After the delivery the midwife tried to remove the placenta using the Credé method. When it didn't work, she had Wijchgel (1895:154-9) called, and he only succeeded after great difficulty. Between the lines he complimented his former student: what she couldn't do was also very difficult for him. The method of the German obstetrician C.S.F. Credé involved stimulating contractions of the womb by rubbing and then squeezing to expel the placenta (Coëlho 1971:124). At first glance, this method resembles that of the *dukun bayi*.

The midwife Djasminah informed her former teacher Van Buuren via telephone that she had been called to a Chinese woman living 20 km from Kediri, Van Buuren's residence. The woman in labour had lost a lot of blood, and Djasminah diagnosed *placenta praevia lateralis* or *centralis*, meaning that the placenta partially or completely covered the internal cervix. When Van Buuren asked what she had done, Djasminah replied that she had examined the woman in labour and packed the vagina with iodoform gauze. Van Buuren told her not to do anything further and await his arrival. An hour and a half later he arrived, and they assisted together at the delivery. In his analysis of the case Van Buuren pointed

out that the prognosis for *placenta praevia* was poor in general. He ascribed the successful outcome in this case primarily to the prompt and proper tamponade Djasminah had applied (Van Buuren 1895:556-61). Van Buuren's appreciation of Djasminah's actions is deserved: in those days it was not easy to diagnose *placenta praevia*, let alone bring the delivery to a successful conclusion.[23] Apparently, both the Chinese family and Van Buuren possessed a telephone, which was a rare object in those days.

MOJOWARNO

The situation in Mojowarno, with Bervoets as instructor, differed strongly from that with a civil physician like Van Buuren. In Mojowarno the Christians formed a close-knit community, in which the missionary doctor Bervoets and his wife were prominent members. There was a hospital, a school and of course a church. People were involved closely with one another: when one of the midwives threatened to leave the training programme, she was convinced by the native minister to persevere. At some point, Bervoets opened a maternity clinic. To encourage patients to come, he and his wife visited all the pregnant women at home and pointed out the great benefits of good care from female compatriots in the clinic and stressed the tragic examples of women who called in his assistance too late. It worked: in 1897 he was called to assist at 7 deliveries; one year later 23 deliveries were assisted by his students (Bervoets 1898:370-6).

Bervoets also described a case in which he worked with one of his students. He was called in by an assistant-district head, whose wife continued bleeding after the delivery. Bervoets went along with his oldest student Markati. Upon arrival, they encountered 'a crowd of helpless but nevertheless highly obstinate *dukun*' (Bervoets 1898:364). The assistant-district head's wife, the Raden Ayu, refused point-blank to be examined by Bervoets. He sat behind a screen and asked Markati to examine the woman in labour, but that was not permitted either.[24] While Bervoets went to drink coffee with the husband on the porch, Markati stayed with the wife. When she saw that the situation had become life-threatening, she told her that although she attended the training programme with

[23] The Utrecht obstetrician H.J. Broers called *placenta praevia* the 'most dangerous of all positions' (Schoon 1995:72).

[24] About 1860 in the Netherlands, it was also not standard for a midwife to be granted permission for an internal examination (Schoon 1995:43).

the missionary doctor, 'she was still a Javanese woman and a *dukun* by profession' (Bervoets 1898:365). She warned the woman that she would die if she did not let her treat her. Ultimately, Markati was permitted to examine the Raden Ayu. She emptied the bladder and removed the blood clots manually from the uterus. Finally, Bervoets was allowed to give the woman an ether injection because she appeared quite weak. About three weeks later gifts arrived in the hospital with a note from the assistant-district head that his wife had recovered. Bervoets felt this case proved that Western-trained native midwives were capable of applying what they had learned in difficult situations; this case involved after all just a simple village girl, still a student-midwife, and the wife of an assistant-district head, a Raden Ayu, a lady of high rank (Bervoets 1898:364-6). With great tact Markati was able to win the trust of the woman in labour: she called herself a Javanese woman and a *dukun*, acting as an intermediary to reduce the gap between the indigenous society and Western midwifery.

BOMBASTIC BIG WORDS

STRATZ PUTS THE CAT AMONG THE PIGEONS

C.H. Stratz was the first gynaecologist in the Indies (1887-1892). He was a flying doctor *avant la lettre*: all sorts of operations were postponed until his arrival when he could carry them out. From far and wide, women were sent to him. His successor, H.F.P. Maasland, expressed this in flowery language:

> Through his masterful hands, 'Gynaecology' made its entry into our tropics; it did not take long before the suffering members of the weaker sex came from all corners of the archipelago in huge throngs to Her temples to worship, and the high priest had his hands full answering all the supplications. Big and small, old and young were operated on, and it seemed there would be no end to the excochleations, portio-amputations, colporrhaphies, perineoplasties, total extirpations, laparatomies and whatever else.[25]

[25] Barten and Stolk 1987:216, note 3. This concerns, respectively, the removal of diseased tissue with a spoon-shaped instrument, removal of the cervix, surgical vaginal narrowing for prolapse, suturing of a tear of the buttock cleft, removal of the uterus and the ovaries, abdominal surgery.

Stratz operated a lot, as it was modern; according to Prof. H. Treub (1896:14-5), in those years a real *furor operativus* dominated, both to be operated on and to operate: 'If you think I exaggerate, then let me recount how, a year or so ago, the name of a young surgeon in the Indies became the stem of a verb, to prove how popular being operated on became among the ladies in those days. I deliberately state "among the ladies", because it is a sad privilege of the upper social class.'[26] Treub was referring to the verb 'stratzen'.

Stratz did not just operate; based on his surgeries, he conducted microscopy research in the recently opened Geneeskundig Laboratorium (Medical Laboratory) (*KV* 1890:122). He reported often and in depth about his findings, both verbally and in writing. For example, in the *Geneeskundig Tijdschrift voor Nederlandsch-Indië*, he described the operations he conducted in the hospital in Jakarta in 1889. He was proud of his achievements: of 131 operations only six patients died, and not one of the deaths could be ascribed to the surgery. After having ascertained this, he remarked, 'In contrast, after so many operations I can confirm with certainty the fact that the commonly accused Indies climate is more suitable for operations than the European. If operations in *the Indies* produce fewer good results than in *Europe,* this is not the fault of the climate, but of the surgeon' (Stratz 1890:6). This was the first insinuation cutting his colleagues to the quick, and not much later the second followed, when he remarked that obstetrics in the Indies was at a low level: 'Even among the physicians there are those who have not exerted themselves to conduct many obstetric duties, although this is an essential requirement for their posting in *the Indies*' (Stratz 1890:12). He was probably referring to the graduates of the Rijkskweekschool voor Militaire Geneeskundigen in Utrecht, which did not include obstetrics in its curriculum. Stratz (1890:12) also noted a lack of fundamental knowledge among many midwives, but he could excuse this because they had not had the chance to study; in the Indies there was no institute to train midwives.

Until then, the European physicians in the Indies had opposed the *dukun bayi*, feeling that their Western knowledge made them vastly superior. Now they were being criticised themselves, by a colleague no less, and a German to boot. During the meeting of the Vereeniging tot

[26] The verb 'stratzen' was also cited by B.J. Kouwer, professor of gynaecology in Utrecht, in his retrospective of the Nederlandsche Gynaecologische Vereeniging (Netherlands Gynaecological Society) in 1932, Mineke Bosch 1994:179.

Bevordering der Geneeskundige Wetenschappen in Nederlandsch-Indië in June 1890, Stratz's comments provoked many reactions. People felt that Stratz had based his judgement on far too few cases and had not been in the Indies long enough to make a proper evaluation. The head of the Medical Service and the editors were blamed for publishing such an article in the *Geneeskundig Tijdschrift voor Nederlandsch-Indië*. Stratz defended himself by saying that he may have presented matters rather strongly to better illuminate his purpose, which was stressing the necessity of a maternity clinic.[27]

At the next meeting Stratz stated that he had not been able to collect figures for maternity mortality to support his opinion because the registers were not kept properly updated. He asked his colleagues for assistance in collecting the data (Monnikendam 1898:10-1). A half year later, again at a meeting of the Vereeniging, Stratz had to recant. His earlier figures about maternity mortality had been incorrect.[28] With some gloating, health officer W. Pauw remarked eight years later: 'Thus, not much was left of Dr. Stratz's uncharitable judgement' (Pauw 1898:779).

Until his departure from the Indies in April 1892, Stratz continued to publish profusely in the *Geneeskundig Tijdschrift voor Nederlandsch-Indië*, and he often spoke at meetings of the Vereeniging. His dominating and arrogant attitude appears to have led to resentment among his colleagues; over time, the criticism of his claims increased. After his departure, the subject disappeared for a number of years – until October 1898 – from the agenda of the sessions of the Vereeniging.

DEBATE IN THE NETHERLANDS

With his article 'White and brown Indies mothers' in the *Algemeen Handelsblad*, an Amsterdam newspaper, of 1 August 1897, the chief editor Charles Boissevain unleashed a fierce and emotional debate that raged in both the Netherlands and the Indies. Boissevain was one of the most respected journalists of his day (Te Velde 1998:137). His emotional plea for better midwifery assistance in the Indies was compared by health officer S. Monnikendam, with some exaggeration, to *Uncle Tom's Cabin*

27 *Notulen Geneeskundige Vereeniging* 1890:574-6.
28 *Notulen Geneeskundige Vereeniging* 1891:140-1.

and *Max Havelaar*,[29] but this time not referring to repressed black slaves or Javanese but rather the wretched midwifery assistance for white and brown mothers (*Verslagen vrouwenarbeid* 1899:46). There followed a flood of articles about the Indies midwives' issue in the non-medical press in the Netherlands. [30]

All of this publicity ensured that the midwives' issue was submitted to the Lower Chamber during the review of the budget for the Netherlands Indies by H. van Kol.[31] The minister of Colonies, J.Th. Cremer, stated that he was convinced of the urgent need for better midwifery assistance and immediately sent a request for advice to the Indies.[32]

An article by Van Buuren appeared soon after titled, 'De verloskundige hulp voor inlanders in Nederlandsch Indië' (The midwifery assistance for natives in the Netherlands Indies).[33] He had researched this article well. With substantial assistance from the resident, he had spoken to almost all of the *dukun bayi*, about 300, in his place of residence Kediri, and tested 35 of them using a *dokter djawa* as an interpreter. Van Buuren was appalled by their lack of knowledge and the fact that some *dukun* were blind or deaf and had various skin diseases.[34] With this article Van Buuren (1898a:20) began a crusade against the *dukun bayi*, whom he called a 'native angel of death'. With boundless energy he continued blasting them for years.

29 He is referring to the famous book by Multatuli (pseudonym Eduard Douwes Dekker) titled *Max Havelaar of de Koffieveilingen der Nederlandsche Handelmaatschappy.* It appeared in 1860 and was very critical on the Dutch colonial policy.

30 First in the *Algemeen Handelsblad* (8-8-1897, evening paper, front page, Van dag tot dag [From day to day] section, no. 21620; 20-8-1897, evening paper, front page, Van dag tot dag section, 'The mothers in the Indies', no. 21632; 21-8-1897, no. 21633; 14-10-1897, evening paper, front page, Van dag tot dag section, 'The mothers in the Indies', no. 21687; 3-11-1897, morning edition, inside page, 'Midwife assistance in the Indies', no. 21707); the *Haarlemsche Courant* and the weekly magazine for ladies *De Huisvrouw* 23-10-1897, excess copies of which were distributed. Also in various Indies periodicals, Bervoets 1898:356. During the review of the budget for the Netherlands Indies for 1899, the MP H. van Kol stated on 24-11-1898 that shortly before an article had appeared in *De Nederlander* with a description of the misery associated with a delivery in the Indies, *Handelingen TK* 1898-9, meeting 24-11-1898, 230.

31 *Handelingen TK* 1897-8, meeting 23-11-1897, 204-8; during the review of the budget for the Netherlands Indies for 1899, he used the same words 'miserly, lamentably miserly' attributed to Professor Treub, *Handelingen TK* 1898-9, meeting 24-11-1898, 230.

32 *Handelingen TK* 1897-8, meeting 23-11-1897, 206. Cremer (1847-1923) was minister from 1897 to 1901 in the Pierson-Goeman Borgesius cabinet; before that, he was head administrator of the Deli company.

33 Van Buuren 1898a. Marland 2003:66, note 37 incorrectly dates this publication to 1897, as Van Buuren signed the foreword in January 1898.

34 Verdoorn (1941:48) pointed out that there was a risk that the *dukun* pretended to be stupid so they would be left alone and presented an image that they thought the other party expected.

Charles Boissevain drawn by Albert Hahn in *De Notenkraker* (1909)

It is striking that the feminists are missing from the discussion – it was the time, after all, of the first feminist wave. They had in general little interest in midwives, which may be due to the class difference: the first feminists were primarily from the upper class of society, while the midwives came from the workers' class and the lower-middle class (Schoon 1995:120). Only at the last moment was a place found for midwives at the Nationale Tentoonstelling van Vrouwenarbeid (National Exhibition of Women's Work) in 1898 (Van Gelder 1982:8; Schoon 1995:121), although it is one of the oldest women's occupations. A three-day congress was held during the exhibition 'to discuss the work of women on various social levels in our Indies possessions'. For example, the physicians H.F.P. Maasland and S. Monnikendam gave a presentation; both had served for a long time in the Netherlands Indies.

The Monnikendam lecture, entitled *Bijdrage tot de oplossing der Oost-Indische vroedvrouwenkwestie* (Contribution to the solution of the East Indies midwives' issue), was a response to Boissevain's articles in the *Algemeen*

Bervoets and his wife with their staff (photo collection KIT 10000788)

Handelsblad, on the one hand, and a rather late settlement with Stratz, on the other.

DEBATE IN THE INDIES

The missionary doctor and instructor Bervoets felt that the issue of midwifery assistance should also be discussed in the Vereeniging tot Bevordering der Geneeskundige Wetenschappen in Nederlandsch-Indië. Therefore, he wrote an article in the *Geneeskundig Tijdschrift voor Nederlandsch-Indië* titled, 'Verloskundige hulp aan inlanders' (Midwifery assistance for natives).[35] On the one hand, he praised those who had raised the issue, while on the other he felt that they were grossly exaggerating and that they did not fairly judge the current training programme for midwives in the Indies. Throughout the entire discussion Bervoets pointed out the lack of any reference to the population's crying need for general medical

35 This article appeared before Monnikendam gave his presentation at the National Exhibition.

assistance. He felt the maternity mortality was low enough to not require improved obstetric care (Bervoets 1898:378-9, 391-2). Thus, Bervoets inserted a new discussion point in which he assigned priority to general medical assistance. As Bervoets had hoped, the issue was discussed in October 1898 during the meeting of the Vereeniging. Because he was posted in East Java, Bervoets could not attend the meeting in Jakarta. Health officer W. Pauw (1898:776) gave a lecture praising Bervoets's article: if someone was competent to speak about obstetric assistance, then it was he 'who spends every day among the native population, and devotes his life to them'.

In the same year a brochure by Van Buuren appeared, entitled *Nog iets over de verloskundige hulp in Nederlandsch Indië* (Some further words about midwifery assistance in the Netherlands Indies).[36] To win over those who were not yet convinced of the necessity for improved obstetric assistance in the Indies, Van Buuren described a number of practical cases where he was called to assist after the *dukun bayi* had failed. Finally, Van Buuren presented the financial benefit of good midwifery assistance for the colonial government. According to his calculations, each year 9000 women died in childbirth; 6000 of them could have been saved; 'Isn't the productive ability of those people (leaving children out for the moment) extremely important for the State! Does it not compensate the expense at least partly?' (Van Buuren 1898b:38). These last words seemed to be addressed to the MPs, who saw the Netherlands Indies primarily as a cash cow. He made sure that the MPs received a copy of his brochure.[37]

RESPONSE TO THE MINISTER

The director of Education, Religion and Industry, O. van der Wijck, responded in April 1898 to the request for advice from Minister of Colonies Cremer. He proposed the following:

a. establishing one school for native midwives for now;
b. dividing Java and Madura into regions, which would be assigned

[36] The brochure appeared after Monnikendam's presentation at the National Exhibition, but probably before the October meeting of the Vereeniging.

[37] In this sense Van Buuren succeeded. During the review of the budget for the Netherlands Indies for 1899, the MP H. van Kol reported that everyone had received the brochure, *Handelingen TK* 1898-9, meeting 24-11-1898, 230.

trained midwives in turn, with a concurrent ban on *dukun bayi* practising in the same regions;

c. unrestricted extension of the partial training programme and increasing the number of students per physician to six.[38]

The ideas of Van Buuren are clearly recognisable in his proposal; Van der Wijck had read the draft of his article.[39] The governor-general, C.H.A. van der Wijck,[40] dismissed the notion of a midwives' school. Similar to Bervoets he made general medical assistance his priority. Minister of Colonies Cremer also supported Bervoets's concepts.[41] In the argument between Van Buuren and Bervoets, between the priority for midwifery or general medicine, it seems Van Buuren tasted defeat despite all his efforts and strategies.

The partial training programme was retained with a modest revision. From now on, every physician could take on at most six students in his training programme.[42] The examination requirements were modified: along with knowledge of the entire human body, the students had to be able to give subcutaneous injections, apply the long forceps and perform version of the fetus, followed by extraction if necessary.[43] In formal terms, this was only an extension of the partial training programme, but with the new examination requirements, the training programme implicitly became more difficult.

EXPERIMENT IN KEDIRI

Van Buuren was not out of the game yet, though. Director of Education, Religion and Industry Van der Wijck decided to put the seven midwives on Java who had been examined since 1891 under the mentorship and

38 Letter 18-4-1898 no. 6442, Bijker et al. 1908:262.

39 Minister of Colonies Cremer stressed during the review of the budget for the Netherlands Indies for 1899 that the plan of the director of Education, Religion and Industry 'was mainly based on the notions of Dr. Van Buuren', *Handelingen TK* 1898-9, meeting 24-11-1898, 231.

40 Brother of the director of Education, Religion and Industry, Van Goor 1979:284.

41 Minister of Colonies Cremer during the review of the budget for the Netherlands Indies for 1899, *Handelingen TK* 1898-9, meeting 24-11-1898, 231. Two years later Cremer pointed out to MP Van Kol that by introducing obstetrics as a subject in the *dokter djawa* school curriculum, he hoped that the population would call first on a *dokter djawa* rather than a *dukun* to assist at a delivery, *Handelingen TK* 1900-1, meeting 29-11-1900, 460. Bijker et al. 1908:263 ascribed the rejection to purely financial reasons.

42 Law 23-5-1899, *KV* 1899:119; only in 1902 in *Ind. Sth.* 1902 no. 201.

43 Resolution of director of Education, Religion and Industry 30-8-1898 no. 14362a, *Bijblad* 5309.

supervision of Van Buuren. He hoped by doing this to obtain improved data to evaluate the midwifery issue (Van Buuren 1898b:25). In practice, only two of the seven midwives accepted the offer. The others probably did not want to leave their place of residence, where they had established a good practice among the Europeans and Chinese, in exchange for a subsidy of *f* 25 per month and an uncertain future. To acquaint the population with the experiment, all dignitaries and *dukun bayi* from Kediri were assembled on 14 May 1898. The district head, the *wedono*, read out a letter from the resident stating that two midwives had been appointed in Kediri, Djasminah and Tasminten, each having been assigned half of the subdistrict as their sphere of activity: 'The *dukun* will from now on have to be recorded in a register with the *wedono* and not be involved with assisting at deliveries any longer'. Their task would now begin after the delivery, transforming them into dry nurses. Everyone from Kediri or the surroundings who was not in the register but still provided assistance would be punished (Van Buuren 1898b:26-8). This speech reinforced the impression among outsiders that the population of the residency of Kediri was being forced to call in the native midwives.

When the experiment started, Van Buuren agreed with Djasminah and Tasminten to respect the *adat* as far as possible in order to win the women's trust. At first, they should not conduct external examinations on the naked body but through the *sarong* and do internal examinations only when absolutely necessary (Van Buuren 1898b:28). By presenting such a course of action as a concession to indigenous customs implies that he generally examined native women while they were naked. Van Buuren most likely assumed – as did Stratz at that time when experimenting on Java – that being a European doctor, he had the right to do so, although he must have known that exposing the female body to an unknown man carried the same taboo as in the Netherlands. In those days midwives in the Netherlands examined patients with their clothes on.[44] In the Netherlands the difference in class between physician and female patient determined the extent of decency: the lower the class, the lower the decency threshold for physical examination (Schoon 1995:41-3). It is likely that the threshold for native women was very low.

After just six weeks Van Buuren confirmed that the trial was producing good results. The figures looked very promising. The two midwives

44 Schoon 1995:41. From stories of unmarried pregnant women who successfully hid their pregnancy from the physician, it appears that extensive physical examination was not done (Schoon 1995:82-3).

assisted at almost 100 deliveries in that time (Van Buuren 1898b:29), a high number compared with other figures, for example the average of 23-28 per year for the midwives in 1885. In addition, the majority of the deliveries concerned native women who came because they expected to be paid. A *dukun* received *f* 2.50 for each pregnant woman she brought to the clinic. 'With one word and a dollar in the hand, I can obtain women for the trial at any moment', according to Van Buuren. He was also prepared to pay the pregnant women if they agreed to give birth in his institute: 'if not *f* 2.50 then *f* 5 or *f* 10. But then they will come!'(Van Buuren 1900:13-4). Van Buuren was prepared to go to any length to make his experiment a success.

	Natives	**Chinese**	**Europeans**	**Total**	***f* nat**	***f* chin**	***f* eur**	***f* total**
Djasminah1	10	1	0	11	0	25	0	25
Tasminten1	20	3	1	24	33	25	5	63
Djasminah2	20	6	2	28	2.50	77.50	100	180
Tasminten2	30	4	0	34	34	25	0	69

Table 7.3 Tasks and wages of Djasminah and Tasminten (Van Buuren 1898b:73)
1= period 15 May to 1 June 1898; 2 = period 1 June to 1 July 1898

He started celebrating too soon, however, because at the end of June 1898 a *dukun* defied the 'ban' and provided midwifery assistance. Van Buuren (1900:28) consulted with the resident who said that it was not permitted to take action against the *dukun* because no police regulations existed in this case. But Van Buuren was not the type of man to overlook that a *dukun bayi* had defied 'his ban'. Via the director of Education, Religion and Industry, his question of whether a *dukun* who caused the death of a woman in labour or baby could be punished was submitted to the procurator-general of the Supreme Court.[45] He responded that prosecution was not possible.[46] To leave no stone unturned, Van Buuren (1910:397) charged a *dukun* at the end of 1899 despite this decision, but

45 Letter 22-4-1899 no. 6867b, Van Buuren 1910:394.

46 Letter from procurator-general to director of Education, Religion and Industry 9-5-1899 no. 886, Van Buuren 1910:394. It concerned articles 237 and 238. Unfortunately, I have not been able to find the Criminal Code for Natives from before 1900; after that date the Criminal Code was revised, and the numbering no longer corresponds.

she was acquitted. This restored the position of the *dukun bayi* in Kediri, possibly even strengthened it: the native population could consider defying the ban as a victory over the coloniser.

Van Buuren did not give up easily now that the plan for a midwives' school had been rejected. In an article entitled 'Een jaar verder' (One year later), he turned against his opponents and insisted that the government must provide a midwives' school and must take decisive action against the *dukun bayi* (Van Buuren 1900:26). His publication stimulated some reactions. Various articles on midwifery appeared in the *Geneeskundig Tijdschrift voor Nederlandsch-Indië,* but they were mostly medical in character and did not concern the controversy surorunding the midwives' training programme. The debate over brown and white mothers fizzled out.

A SHORT TRAINING PROGRAMME?

In 1900 the ethicist J.H. Abendanon was appointed director of Education, Religion and Industry, the pre-eminent welfare department in those days. This gave him the opportunity to introduce concepts from the ethical policy into this field in practice. He strongly promoted Western, Dutch-language education for native children, especially for girls. He and his wife became known for their contact with Raden Adjeng Kartini, the talented daughter of the regent of Jepara.[47]

Soon after his appointment, he had a report prepared about the native women who had been trained as midwives since 1891. On the basis of the total of just 29, Abendanon concluded that the intended aim – Western midwifery assistance for the native population – would never be achieved even approximately. Therefore, he proposed a short training programme lasting six months alongside the existing partial training programme. These students would learn how to assist at a normal delivery and recognise complications. *Dukun bayi* could be admitted to this short training programme. He presented his plan to the head of the Medical Service, C.J. de Freytag, and to the Civil Medical Service inspector, A.G. Vorderman. Neither had any fundamental objections. The regional health officers and the regional administrators also responded positively (Bijker et al. 1908, appendix VI:263-6). Abendanon also asked

47 He edited the many letters Kartini wrote, Abendanon 1923.

the physicians charged with the partial training programme how they felt about his proposal: Van Buuren was in favour and Bervoets against.[48] Abendanon tried to reason with Bervoets (Bijker et al. 1908:267). In reply, Bervoets sent him the article that he had written in 1898 for the *Geneeskundig Tijdschrift voor Nederlandsch-Indië*, where he added that the midwives he had trained were seldom called upon. According to him, it was not yet feasible to change the position of the *dukun bayi*, regardless of how poor their assistance was. And when that time did arrive, then midwives after a training programme of only half a year would not be much more effective than a *dukun*. In his view, there was no reason for extraordinary measures (Bijker et al. 1908:267-8).

With so much support, one would expect the short training programme to be implemented immediately. But apparently Bervoets's arguments carried so much weight that Abendanon set up a commission chaired by the Civil Medical Service inspector C. Winkler.[49] Its members included familiar names like Van Buuren and Bervoets, along with health officer A.A. Gersen, J.W.C. Kern, civil physician in Mojokerto (Surabaya), J.H.F. Kohlbrugge, civil physician in Sidoarjo (Surabaya), the regents of Probolinggo, Demak, Serang and Ngawi, and Ismael, *dokter djawa* in Mojowarno (Surabaya).[50] The composition of this commission was extraordinary, consisting of six Dutch people and five natives, and reflects Abendanon's ethical principles. The participation of four non-medical people, the regents, is also striking; apparently, people were aware that non-medical arguments formed an important factor in this issue. The meetings of the Commission were characterised by 'an almost constant battle of words' between Bervoets and Van Buuren. The majority supported Bervoets's idea that a short training programme had no chance of success,[51] after which the commission was disbanded.[52]

After the negative advice from the Winkler commission, the government rejected the short training programme option (Bijker et al. 1908:269). The existing arrangement was formalised. Graduates were given a certificate and had to take an oath, after which they received

48 It is not clear whether the other instructors who had far fewer students than Van Buuren and Bervoets were asked for their opinion.

49 Appointment by GB 28-9-1902 no. 8, *KV* 1903:205.

50 The reorganisation Commission gave the name of the Europeans and the job of the natives, Bijker et al. 1908:268.

51 Bijker et al. 1908:268-9; Kohlbrugge 1909:412. One of the regents stood behind Van Buuren.

52 GB 1-8-1903 no. 32, *KV* 1904:213.

permission to practise midwifery. This permission could be suspended temporarily or withdrawn for misconduct, indecency, reduced mental capacity or madness.[53] A set of regulations for the duties and obligations of native midwives appeared,[54] including the stipulation that midwives were permitted to use mechanically-assisted measures in emergencies. The local physician must be informed of such an occurrence immediately. This was taken into account when equipping the midwives, as they were given instruments along with medicines (like iodoform) and utensils (including a box of suture needles), such as a pair of forceps, according to Naegele, and sequestrum forceps, according to Meyer.[55] If they received a subsidy from the government, they were obliged to assist needy women during delivery and provide support for nine days afterwards. They had to submit a register of their activities monthly. On the required form the midwives had to fill in how late the first, second, and third stages of delivery started. Their range of duties broadened: they were allowed to insert a catheter for labouring women and also for non-pregnant women.[56] This suggests that formally not much changed, but the responsibilities and duties of the midwives would be better arranged.

In November 1902 the director of Education, Religion and Industry asked the regional administrators to announce the partial training programme among the European physicians in their region. Additional advertisement was needed because few instructors had volunteered (Bijker et al. 1908:270). Not even two years later, in August 1904, Abendanon again directed a letter to the regional administrators, now with the question of what measures were available to find enough instructors and students.[57] The responses from the regional governors amounted to the following:

1. in many residencies too few candidates were available because too few women had received enough elementary schooling. The daughters of native heads had the desired preliminary education, but in

53 Resolution of director of Education, Religion and Industry 31-5-1907 no. 10138, *Bijblad* 6685.

54 Resolution of director of Education, Religion and Industry 9-8-1902 no. 14694, *Bijblad* 5947.

55 Appendix I, Reglement, *Bijblad* 5947. Both forceps are still used today: the Naegele version can be taken apart. After placing the two blades around the head, the blades are locked together again, and then the child can be pulled out. The sequestrum forceps are still used today to grab tissue or gauze, as reported by L.W. Peters, gynaecologist.

56 Appendix I, Reglement, *Bijblad* 5947.

57 Letters were not sent to the residents of Kediri, Menado and Ternate; enough midwives had already been trained there.

general they did not want to become midwives. Native Christian girls preferred to apprentice themselves to missionary doctors for training as nurses or midwives;
2. many parents objected to their daughters being away for 2-3 years, especially if the location of the training programme was far from their own village;
3. many native women were uncomfortable being trained in midwifery by a man;
4. the population in general refused to accept Western midwifery and thus also the training programme. The *dukun* was preferred;
5. the European physicians also had objections. Some had too little time, some assisted at too few deliveries and were rarely or never called to the kampong. Still others did not see any benefit in the training programme (Bijker et al. 1908:270-1).

The survey did not produce anything new; the responses confirmed what they already knew. No change in policy followed.

REORGANISATION COMMISSION

In 1906 the board of the Bond van Geneesheeren in Nederlandsch-Indië asked the governor-general to arrange a reorganisation of the Civil Medical Service. An elaborate proposal for a new Civil Medical Service accompanied the request, which had been prepared by one of the board members, W.Th. de Vogel, municipal physician in Semarang. It assigned little importance to midwives: trained native nurses were meant to replace the *dukun bayi* (De Vogel 1906:19, 39). De Vogel did not have anything good to say about the native midwives. Everything they had learned about asepsis and antiseptic measures they quickly forgot, thus endangering the lives of the women in labour during normal deliveries; he considered them a greater danger than the *dukun bayi*. Ideally, the *dukun* should be trained as nurses, and the best nurses trained as midwives (De Vogel 1906:28, 40-1).

In June 1908 the reorganisation Commission published an extensive report. The opening lines of the section about the native midwives did not augur well and sparked off a lot of criticism:

> Considering that practically everyone in Europe agrees that the midwives there are inadequately trained and not entirely suited to their task, leading several authorities to call the entire institution a State-sanctioned charlatanism, and others to consider it a necessary evil, then the members of our Commission cannot be expected to arrive at a solution to the midwives' issue for the Indies that will satisfy everyone. (Bijker et al. 1908:88.)

The Commission was willing to go along with Van Buuren's opinion that a *dukun* sometimes acted brutally during difficult deliveries, but added that it could not judge the behaviour of the *dukun* from a Western point of view. Native women in labour preferred the heavy-handed *dukun* to the Western-trained midwives with their expectant attitude. The Commission rejected the position of the founder of the midwives' school W. Bosch and Van Buuren, that many native women and children died unnecessarily as a result of the *dukun*'s incompetence. There was no evidence for this due to the lack of reliable statistics. The Commission did believe that human lives were lost through inadequate assistance during difficult deliveries, but a certified midwife would not necessarily do any better. Van Buuren's experience that native women were prepared to call on the assistance of a European physician or midwife during a difficult delivery conflicted with that of all other medical personnel in the Indies. The Commission ascribed this to the coercion exerted in Kediri. The reorganisation Commission concluded that no new avenues should be tried for the midwives' training programme as long as no adequate statistics were available (Bijker et al. 1908:90-3). In reality, the Commission utterly rejected Van Buuren and his views.

Then the reorganisation Commission produced the following recommendations (Bijker et al. 1908:94-6):

a. continuation of the current training programme in conformance with the regulation from 1902;
b. a fixed salary for every certified midwife and a bonus for every delivery done free of charge. A salary of *f*10 - *f*15 per month was suggested and a bonus of *f*2.50 for a native delivery and *f*5 for a European (Bijker et al. 1908:145);
c. assigning salaried midwives where the government considered them most useful. Midwives who returned to their regions of origin of their own accord were not paid a salary;

d. obligation for certified midwives to work as a nurse in a native clinic.[58] In addition, they were required to assist all native women and – if no European midwife were available locally – also the European women during delivery and provide support for 10 days afterwards for free;
e. salaried midwives were banned from having a private practice among Europeans or Chinese women, if a European or unsalaried native midwife was available there;
f. native and European midwives were banned from using midwifery instruments. The Commission had ascertained that the midwives stored their instruments in an unhygienic manner; without forceps or hook they were sometimes unable to assist, but the danger of infection caused by dirty instruments was ten times greater;
g. adjustment of the examination requirements: using internal and external examination the candidates must be able to determine, for example, the position of the fetus and the stage of pregnancy;
h. establishing a school to train European or native midwives was out of the question for now. Even though the Commission felt this was the best training method, it doubted whether in the current circumstances enough students and women in labour could be found.

The essence of the proposal of the reorganisation Commission was securing a nursing position for the midwives in the Civil Medical Service. Work in a hospital had three purposes: first, the midwives kept their knowledge and skills sharp, especially concerning aseptic precautionary measures. Second, they would be gainfully employed for their salary. The Commission assumed that they would otherwise be idle as long as the natives did not want Western midwifery assistance. Third, they kept in contact with the physician to whom they were accountable (Bijker et al. 1908:94-6).

REACTIONS

The reorganisation Commission's proposals for the midwives and their training programme led to a comprehensive discussion. Because the

[58] It is possible that the reorganisation Commission was inspired to do this by the situation in Mojowarno. There, the native midwives also worked as nurses, assisting at operations in the hospital, Duymaer van Twist 1911:47.

The *dukun* on the right is blind, but she is the only blind person in all of Van Buuren's photos (Van Buuren 1909)

Commission repudiated Van Buuren and his concepts completely, he had to respond. At that time he was living in the Netherlands, from whence he rebuffed the Commission. He opened his attack with the accusation that hardly any member had experience with midwifery (Van Buuren 1909:5). He supported his own experience with the articles of two native physicians, the Tehupeiory brothers, in the *Tijdschrift voor Inlandsche Geneeskundigen* (Van Buuren 1909:7). Based on 570 abnormal deliveries in the kampong and photos of various *dukun*, Van Buuren described them and their method of working once more: they were old, inadequate and incapable.

Until then Van Buuren had always dismissed every suggestion of coercion, but now he admitted: 'That he [his successor Stibbe] and I have dealt with so many unusual deliveries can be ascribed to nothing else than the resident's command'.[59] In his defence he claimed that the number of

59 Van Buuren 1909:33. In the *Onderzoek mindere welvaart* 1911:90 Van Buuren was cited as saying: 'If you really want to see results of the services of the native midwives, then coercion is considered absolutely essential'.

Two d*ukun* are old, the other two are relatively young. The photos give a less dramatic image of *dukun* than Van Buuren presents in his writings. (Van Buuren 1909.)

deliveries with expert assistance had increased tremendously as a result. Van Buuren cast aside the Commission's criticism of the trained midwives: his students – half of the graduates – were always complimented by the examination committee and were in great demand. Van Buuren considered the training programme plans of the Commission completely inadequate. He produced a detailed counter-proposal with the now-familiar aspects such as registration of the *dukun*, allowing mechanical assistance in emergencies and a midwives' school (Van Buuren 1909:51-7).

Van Buuren waged his battle against the reorganisation Commission and its proposals on several fronts. He asked the Nederlandsche Gynaecologische Vereeniging (Netherlands Gynaecological Society) whether the Commission's statements about Dutch midwives were justified. The Vereeniging appointed a committee with Stratz and Van Buuren as two of its members, who distributed a questionnaire among the 71 members of the Vereeniging. The responses revealed that no one shared the reorganisation Commission's opinion: aside from a few exceptions, midwives in the Netherlands carried out their work in praiseworthy fashion. The committee declared the statements of the reorganisation Commission

unjustified and advised the Vereeniging to protest against them to the minister of Colonies and the Home Office (Van Buuren 1909:3-5). Usually, physicians did not have a high opinion of midwives, but given these accusations from the reorganisation Commission, the members of the Netherlands Gynaecological Society were unanimous in backing them.

Furthermore, Van Buuren contacted the executive board of the Nederlandsche Maatschappij tot Bevordering der Geneeskunst (Dutch Association to Promote Medicine) and managed to get the Indies midwives' issue placed on the agenda of the general meeting in July 1909. This is striking because the Nederlandsche Maatschappij rarely concerned itself with the situation in the colonies or with midwives. The proposal to appoint a committee to study the issue of midwifery assistance in the East Indies colonies was approved by 72 votes to 58 after a passionate defence by Van Buuren.[60]

The reorganisation Commission, disbanded in the meantime, responded with fury. They began by stating that people in the Netherlands may not realise that in the Indies not only Chinese, native intellectuals and Indo-Europeans were disturbed by the manner in which people in the Netherlands dealt with the Indies interests, the resident Dutch were also annoyed by 'the bombastic big words and pathetic tiny deeds' (*Genees- en verloskundige hulp* 1910:33). The proposal adopted at the meeting of the Nederlandse Maatschappij tot Bevordering der Geneeskunst had only amplified these feelings (Verdoorn 1941:134).

The Vereeniging tot Bevordering der Geneeskundige Wetenschappen in Nederlandsch-Indië also took this issue seriously. At a well-attended meeting in October 1909, it was decided by common consent to protest to the Nederlandsche Maatschappij tot Bevordering der Geneeskunst. People expressed their astonishment at the superficial treatment of issues by people who had no knowledge of these matters (*Jaarverslag over 1909* 1910:xvii-xix). Then the executive board held a referendum among its members about whether or not to support the protest of the reorganisation Commission (*Genees- en verloskundige hulp* 1910:4). An absolute majority supported the Commission.[61]

60 *Handelingen congres Nederlandsche Maatschappij Geneeskunst* 1909:585; *Genees- en verloskundige hulp* 1910:7-21.

61 *Genees- en verloskundige hulp* 1910:6. The executive board published a brochure about the entire issue entitled *Genees- en verloskundige hulp in Nederlandsch-Indië* (1910), in which the notes of the general meeting of the Nederlandsche Maatschappij tot Bevordering der Geneeskunst, the protest of the disbanded Commission, the appeal and the result of the referendum were published.

The chair of the former reorganisation Commission, Bijker (1909), and C. Winkler (1909:1817-23), one of the members, crossed swords with Van Buuren. Van Buuren's successor in Kediri, F.S. Stibbe, also commented. He rejected the denigratory attitude of the Commission towards the native midwives. Furthermore, he honoured the same preferences as his predecessor.[62] Van Buuren (1910:366-400) wrote another defence in which he repeated his views on coercion and the *dukun*, corroborated by recent information about the practices of the *dukun* in Jakarta, where he was working at that time. The editorial board of *Geneeskundig Tijdschrift voor Nederlandsch-Indië* gave the reorganisation Commission a last chance to respond, after which the discussion was ended as far as the editorial board was concerned: the topic was now known and had been sufficiently explored.[63] Their lamentation about the discussion is understandable, but this did not stop it continuing outside the *Geneeskundig Tijdschrift voor Nederlandsch-Indië*.

A group of native doctors, 'sons of the tropics in Amsterdam', became involved in the controversy. They admired Van Buuren but were against the imposition of coercion. They supported the reorganisation Commission's proposal to organise the midwives' training programme in several large clinics (Lumentut et al. 1910:11-2). They recommended a boarding school run by a European nurse: 'Sound supervision, protection and kindness are better than rigorous stipulations as weapons against lewdness in the Indies as well' (Lumentut et al. 1910:17). Once again, the association of young women with sexual misconduct recurs. These are the same doctors who earlier that year responded to the proposals of the reorganisation Commission; only Abdoel Rivai was missing.[64]

OUTCOME

The Lower Chamber approved the reorganisation Commission's proposals with regard to the midwives.[65] The subsidy for native midwives was withdrawn; they became assigned to the government clinics as nurses with a fixed salary and awarded a bonus for every delivery out-

62 F.S. Stibbe l909:385-415. Not to be confused with D.L. Stibbe, member of the reorganisation Commission.

63 Remark from the editorial board at the beginning of Nijland and Bijker 1910:400.

64 Perhaps the tone was less strident because Abdoel Rivai, with his critical attitude to the colonial government, was not involved in preparing this brochure.

65 Draft legislation 21-10-1909; *Ind. Stb*. 1910 no. 648 - 651.

Midwives and nurses at a missionary in around 1910 (photo collection KIT 10002346)

side the institute (*Onderzoek mindere welvaart* 1912:107). The partial training programme offered by physicians on-site was continued for now (*Geneeskundige Dienst* 1917:764). In addition, the best students who had completed nursing training could continue to take a midwives' course (Stokvis-Cohen Stuart 1914:1-14). The risk that the graduates would go work for Europeans or Chinese women persisted, as reflected in the words of Mrs. Stokvis-Cohen Stuart (1916:20): 'A very important point to consider is […] how to retain the certified girls for the *Javanese* population. After all, the biggest complaint is always that so many of the certified midwives prefer a European and Chinese practice to the native one because of the higher wages.'

THE GRADUATES AND THEIR TASKS, 1900-1915

Let us return to the practice. In 1901 there were still 14 midwives from the old cohort working with a subsidy and 39 from the new cohort, of whom 33 received a subsidy.[66] In the Outer Islands the distribution over

66 *KV* 1902:205. Verdoorn 1941:2 mentions 32 certified midwives on Java in 1905.

the various islands of the archipelago was unequal; almost half worked in the residency of Manado. Only three of the five midwives in the main town of Manado could provide for themselves.[67] On Java the midwives were concentrated in the east, near the locations of the most productive instructors, Bervoets and Van Buuren.

The 20 midwives trained in Kediri assisted at a total of 500 deliveries in 1907, on average 25 per person. In 190 cases (38%), retention of the placenta was diagnosed.[68] Most likely, complications like this led to their assistance being requested. Two native midwives – probably in Semarang – assisted at deliveries of 106 native women over six years – primarily householders of Europeans and wives of native heads – and at deliveries in the municipal clinics (*Bond van Geneesheeren* 1910:92). In 1910, 91 government midwives were active throughout the entire archipelago, but just 79 five years later. Nevertheless, the number of deliveries they assisted at rose from 1017 to 3817 (Verdoorn 1941:141-2), an increase from an average of 11 to 47 deliveries per midwife.

We know something about two of Bervoets's students. One worked in Sidoarjo (Surabaya). She did not leave home because her husband would have been jealous (Kohlbrugge 1907:190). The local civil physician, Kohlbrugge (1907:217), submitted a complaint about her for this reason, and she was dismissed by Bervoets. The fact that Bervoets dismissed her suggests that she was still a student carrying out practical training with Kohlbrugge. On his inspection tour of Java, the MP H. van Kol met another midwife trained by Bervoets. She assisted mothers giving birth and saved many infants from a certain death. It had been difficult for her to leave her beloved Mojowarno, but she had done it to 'promote God's work'. She did not concentrate solely on midwifery; she also provided general medical assistance (Van Kol 1903:737). Mojowarno apparently produced missionary-midwife-nurses. In Mojowarno itself four native midwives practised. In 1910 they assisted at a total of 157 deliveries, 155 Javanese and 2 Chinese women. Although they were mainly called in for complications, they assisted occasionally at normal deliveries (Duymaer van Twist 1911:46-7).

A minority of the native midwives succeeded in supporting themselves with a private practice. In 1900 there were 6, and in 1914, 18, all

67 *Verslagen geneeskundigen dienst* 1909:560-1.

68 Van Buuren 1909:18, table at the back. It is not clear whether these deliveries occurred in one or over several years.

but 2 on Java.[69] The sultan of Yogyakarta employed one native midwife, who assisted at the deliveries of women at court for a fixed income of *f* 50 per month. She supplemented this by helping other women during childbirth.

DJARISAH

The report of the Committee charged with investigating the reduced prosperity (*Onderzoek mindere welvaart*) contains a contribution from a midwife, Djarisah. Because of her unusual career, she would have been approached as a lower-class woman. Of the remaining eight contributions, seven were written by ladies from the upper class of the *priyayi*.

In May 1899 Djarisah was involved in the experiment in Kediri. Most likely, she had just completed her training with Van Buuren. In 1913 she departed for the Netherlands without her parents' permission to learn a specialism. Afterwards she settled in Bandung, far from Kediri where she had been trained. In her contribution she argues primarily for more education for women so that they are no longer dependent on men. This dependency could force a girl off the straight and narrow until she became pregnant while still unmarried, with all the associated consequences. In an afterword she expressed her opinion of the midwifery assistance. She was against a short training programme like the one being proposed by Abendanon because the assistance provided during childbirth must not be allowed to suffer for a lack of specialist knowledge. She proposed a one-year training programme for assistant-midwives, then the graduate would have to return to her village. The village head would have to announce that it was the population's duty to call on her assistance. Djarisah was in favour of instituting a light punishment to support the obligation. If a complication occurred, the pregnant woman must be transported to the main town. Given the known modesty of Javanese women towards men, it was better to call in the assistance of a female doctor. Djarisah stated that she was prepared to assist for free when there were complications.[70] In her suggestions for midwifery assistance, we recognise the ideas of her teacher Van Buuren. Just like him,

[69] *KV* 1900:appendix S. It must be taken into consideration that figures about the number of medical personnel in private service were incomplete because such data were definitely not always communicated to the government.

[70] Djarisah 1914:14-21.

Djarisah had absolutely no appreciation of the *dukun bayi*'s expertise. In her contribution, she comes across as a defender of Western midwifery.

STATUS

Not much can be said with certainty about the status of midwives. From the few available sources, the profession appears to have been held in low regard. Kartini and her sisters, the daughters of the regent of Jepara, were granted permission by their father to be trained by Bervoets as midwives around 1900.[71] Their family and friends were against this because they feared this would endanger the sisters' aim – freedom and independence for Javanese women. Kartini was convinced by this:

> While even in civilised Europe people still look down on the profession of accoucheuse with a certain disdain, can the Indies, hooked on pomp and circumstance, appreciate the beauty of the work? It will only notice the humbleness, […]. The example we give must be able to be applied by others. And something that is viewed with disdain will not be imitated.[72]

In 1904 the residents stated – in response to Abendanon's questionnaire – that the daughters of native heads had been sufficiently educated to be admitted to the midwives' training programme, but that generally they did not aspire to become midwives (Bijker et al. 1908:270-1). In both cases this involved young women from *priyayi* circles.

Girls from the lower classes felt the same. Mrs. Bervoets-van Ewijck (1897:169-71) experienced that it was simple to find girls interested in a training programme in education or pedagogy, but nursing was a very different career because it was more likely to be disdained by the parents and the community than appreciated. This remark about nursing also referred to midwifery because in Mojowarno both training programmes were combined. One of the students in Mojowarno was engaged to a candidate-teacher, but the engagement was broken when she started studying for her exam. The other students 'will have difficulty to make a good marriage, because […] their marriageable prospects will be negatively affected by their work'. 'Our Christians' lack 'the regard in which

71 Tessel Pollmann in an review of *Kartini, brieven aan mevrouw R.M. Abendanon and haar echtgenoot*, edited by F.G.P. Jacquet, *Vrij Nederland* 12-12-1987.

72 Letter to Stella Zeehandelaar 11-10-1901, Abendanon 1923:141-2.

This photo (from 1930) clearly shows the difference between the *dukun bayi* on the right and the midwives on the left. The *dukun* is an elderly woman, dressed like a woman from the village with her 'instruments' (herbs, rice, an egg) on the table in front of her. The midwives are young, in white uniforms with their instruments (obstetric stethoscope, white, hygienic towels). (Borggreve 2007:60.)

the profession of nurse is held by all countries of the world', according to Mrs. Bervoets-van Ewijck (1897:176). The women being trained in another missionary hospital, the Petronella Hospital in Yogyakarta, mostly belonged to the lower Javanese classes (Van der Woerdt 2004:40). Elsewhere it was also noted that Sundanese girls could not be convinced to take the midwives' training programme (*Onderzoek mindere welvaart* 1911:90). Between the lines it seems that this was due to the low status of the training programme and the profession. Another point of view was expressed by Mrs. Stokvis-Cohen Stuart (1914:1-14), who as a doctor in Semarang noted little interest in the nurses' training programme and much more for the midwives' training programme. Her explanation was that the profession of midwife had more prestige and better financial prospects.

DUKUN BAYI

Without exception the sources report that *dukun bayi* were highly regarded by the population. Many authors of sources, practically all European men, were very negative about them, however. The MP Van Kol was clearly influenced by Van Buuren in his opinion of midwives, their

training programme and *dukun bayi*. On his inspection tour of the archipelago in 1902, he visited Kediri and spoke with several *dukun* whom Van Buuren produced for him: 'Most of them looked unhealthy, stupid and dirty; one even had advanced syphilis.' According to him they messed about with 'some spit and magical formulas' and treated the woman in labour 'with dirty hands and dirty cloths and kitchen utensils' (Van Kol 1903:745-6). He judged the midwifery assistance throughout the archipelago to be poor: the women in labour were 'subjected to the torture of old women' (Van Kol 1903:191).

Even a man like Vorderman, who was very interested in indigenous medicine, had a poor opinion of the *dukun bayi* in his posting at Purwakarta (Krawang), and of the *dukun bayi* in general. He could not imagine how the treatments done by the *dukun bayi* in Purwakarta, Ma Noor, inspired the trust of the population, 'as her knowledge was limited to the usual abuses of *dukun*'.[73] He was even a proponent of coercion: if the trained midwives wanted to gain prominence, then the exercise of midwifery by uncertified *dukun* would have to be banned.[74] The views of the missionary J. Kreemer about the *dukun bayi* were strikingly detailed and unmistakable. Missionaries in 1880 had considerable medical knowledge. In his memoirs he described himself as having 'a modest amount of medical knowledge' (J. Kreemer 1898:318). But when he writes that the *dukun bayi* never supported the perineum with their hand, it seems as if a physician is talking. According to him, *dukun bayi* – he talked about old women (J. Kreemer 1882:583) – made the most flagrant and foolish mistakes: 'During deliveries the greatest superstition is associated with the greatest ignorance, and if the matter was not of such a serious and delicate nature, one would probably laugh about it' (J. Kreemer 1882:591). To underpin his arguments, he quoted various physicians such as health officer G.H.G. Harloff, a certain Dr. E. who had given an example of incompetent actions by a *dukun bayi* in the *Geneeskundig*

73 Letter from Vorderman to the head of the Medical Service 4-11-1876 no. 37, *Historisch overzicht* 1898:appendix A.

74 *Historisch overzicht* 1898:appendix A. Vorderman formulated his viewpoint in 1876, thus long before Van Buuren was attacked in the discussion on the midwives' issue because of the coercion applied in Kediri. At that time Vorderman was the Civil Medical Service inspector (1898-1902), and stayed out of the discussion about the use of coercion in Kediri. As a highly-placed civil servant, it was not possible for him to publicly distance himself from the government's viewpoint that coercion may not be applied.

Tijdschrift voor Nederlandsch-Indië,[75] and S. Beyers van de Vlugt.[76] The last-mentioned person was extraordinarily negative about native midwives: 'Among the *dukun* it is all superstition and empiricism. They do not have the least understanding of the mechanism of childbirth' (J. Kreemer 1882:590, note 15). His publication, *Practische mededeelingen op het gebied van de verloskunde in Indië* (Practical notes about the field of obstetrics in the Indies), cannot have extolled the virtues of the *dukun bayi*.[77] But it was this publication that was recommended around 1880 by the head of the Medical Service to all health officers (J. Kreemer 1882:590 note 15). In short, little had changed in the views of many Dutch doctors and pseudo-doctors about the *dukun bayi*.

There is one special source in which a Javanese talks about the *dukun bayi*. At the time of writing, Raden Mas Noto Kworo had not yet had any experience as a doctor and had probably just finished his study of medicine in Leiden. He did not want to take sides concerning the *dukun bayi*:

> One says that the *dukun* do no harm during a delivery, because they do not use instruments and do not perform internal examinations, and thus cannot infect the woman; in contrast, others claim that the *dukun* does manipulate the woman's genitalia and smears her inside and out with dirty oil to make the birth canal slippery. (Noto Kworo 1918:65.)

About the assumed mistreatment of the woman in labour by the *dukun bayi*, he noted that some said the native women in labour favoured it, 'that at least something was being done for her benefit', while others considered it inhumane and wanted to put a stop to it as quickly as possible. He did not want to judge the *dukun bayi*, but said that it would be much more comfortable for the woman in labour if the *dukun*, just like the midwife in Europe, would restrict herself to the encouraging talks and expectative support (Noto Kworo 1918:65). Elsewhere he stated that he was in complete agreement with Van Buuren (Noto Kworo 1918:71). Noto Kworo seems from this to have had a negative opinion of the *dukun bayi* after all.

75 J. Kreemer 1882:590 note 15, 591. Perhaps by this he meant health officer F. Epp.

76 In Archief Schoute Pasoeroean, S. Beyers van der Vlugt was listed as a civil physician in Pasuruan in 1850, which seems too long ago to be the same person.

77 Unfortunately, this publication has not been available.

Positive statements about the *dukun bayi* could have been partly inspired by the wish to assign priority to general Western medical assistance, with midwifery coming second. A strongly negative description of the *dukun bayi*'s expertise would almost force the authors to give priority to improving that area. The health officers Pauw, Haga and Gersen recognised the skill of *dukun bayi* assisting at normal deliveries.[78] The municipal physician De Vogel, the board of the Bond van Geneesheeren and the prosperity Committee considered it beneficial that a *dukun* did not perform any internal examination because at least in that case they did not cause puerperal fever, which did happen with deliveries attended by native midwives.[79] According to the elderly, former municipal midwife of Semarang, C. de Vries-Bultman, *dukun* traditionally did not perform internal examinations. That they had more recently been observed doing so she ascribed to a wish to imitate the native midwives.[80] Thus, she suggested there was some competition between the *dukun* and the native midwives.

Training the *dukun bayi* or their blood relatives in the Western manner was suggested several times. In 1888, during the discussion about restarting the midwives' training programme, the Council of the Indies had considered this solution. Abendanon primarily thought of *dukun* as students for the short training programme; he was supported in this by the responses to the questionnaire. Gersen (1901:587) proposed apprenticing the most suitable of the *dukun bayi* for a few months with a physician or a European or native midwife. None of these plans were realised, however.

Another form of schooling was provided by the midwifery handbooks from *dokter djawa* Raden Moehamad Saleh Mangkoepradja.[81] He called on *priyayi* ladies to read his books and share their contents with the *dukun bayi.* Given the class difference, it seems unlikely that the richly illustrated books achieved their purpose.

78 Pauw 1898:781; Haga 1894:49; Gersen 1901:575-7.

79 De Vogel 1906:28, 40; *Bond van Geneesheeren* 1910:74-88; *Onderzoek mindere welvaart* 1911:90. According to Verdoorn 1941:47. De Vogel in 1904 apparently noted that the *dukun* in Semarang – in imitation of the native midwives – also began to manipulate internally.

80 She belonged 'to the good ones'; was 'Indies in origin' and trained in Amsterdam by Professor Tilanus; she was municipal midwife from 1867 to 1899, *Bond van Geneesheeren* 1910:74-91.

81 *Kitab atoeran bab maradjian djĕlĕma noe ngedjoeroe* (1901) and the Malay translation, *Kitab pengadjaran bagaimana patoet orang menoeloeng sa-orang perampoean jang beranak* (1902).

One of the many, realistic illustrations from the midwifery handbook (Mangkoepradja 1902:7)

DRAWING UP THE BALANCE

The partial training programme produced 100 graduates in the years 1892-1915, a few more – and in a shorter period – than the abolished school. Most of the midwives of the new training method received a subsidy, 88 in 1914, half of them in Java and the other half in the Outer Islands. The distribution was extremely uneven: on Java the majority worked in the east because their teachers, Bervoets and Van Buuren, were located there. On the Outer Islands almost half were found in the residency of Manado (21 of 45). No subsidy was given to 18 midwives, almost all on Java. They could apparently survive on their private practice. After a hesitant start, more and more women began to apply to the training programme. In the period 1900-1910 there were over 20 students each year. In 1914 only 106 midwives were working, so the drop-out rate was high. The correctness of these figures is uncertain; doubts were expressed continuously in the Colonial Report.

CONCLUDING REMARKS

In the period 1875-1915 the number of native midwives was and remained extremely limited, as did the number of deliveries they assisted

at among the population. Compared with the approximately 700,000 children born each year on Java, the 100 midwives could not have made a significant impact.[82] The importance of this period lay in the discussion of the midwifery issue in the Indies and in the Netherlands, which was not confined to physicians. Van Buuren played a dominant role in the debate. The topic appeared repeatedly on the agenda due to his perseverance and strategic insight with which he knew how to organise support at critical junctures. According to Kohlbrugge (1909:414), Van Buuren understood like no other the art of 'stirring hearts, making pens and voices move'. Ultimately, nothing changed; it remained 'the bombastic big words and the pathetic tiny deeds'. The debate shows how large even then the influence of the media was on political decision-making. The government was forced to formulate its view on health care for the population: priority was given to general medical assistance and not to midwifery.

The situation on the medical market stayed the same: the position of the *dukun bayi* remained strong. The native midwives did not succeed in winning the trust of the natives; native women in labour did not make use of their assistance even though it was free. Their generally young age and the *adat* customs hindered their acceptance. Strategies were sometimes developed to remove these hindrances, for example the agreement of Van Buuren, Djasminah and Tasminten at the start of the experiment in Kediri to respect the indigenous traditions surrounding childbirth as far as possible. The government even incorporated a stipulation in the regulations that the women in labour and their babies had to be looked after for eight days after delivery so that they would not feel abandoned by the native midwives. Another example of strategic measures was given by Markati, who called herself '*dukun*' at the Raden Ayu's bedside. Support from the administration could ease the introduction of the native midwives to the pregnant women in the village. In one case, the resident of Purwakarta, it is known that this had an effect, but the expertise of the midwife in question was also certainly involved. In another case, the resident of Kediri, the situation involved less support than coercion. In addition, the *dukun* were paid to bring in a woman in labour, and the women in labour were paid to give birth in the maternity clinic. As the government and most Dutch administrators disapproved of coercion, this approach was limited to the residency of Kediri, and it is unclear

[82] *Handelingen TK* 1903-4, 516, meeting of 26-11-1904, Van Kol stated the figure of 700,000 births per year was derived from the colonial reports.

whether it would have had an effect in the long term.

The alternative of introducing Western midwifery assistance in the villages through female European doctors was also considered. In British India this method was chosen. When it became evident that native women refused to consult a male doctor, women were permitted to study medicine at university in England and in British India. Many of the first female English doctors left for the colony. In the Netherlands Indies this did not happen, although native women there also refused to be examined by a male doctor.[83] Around 1900 the first appeal for female doctors for the Indies was heard, but largely ignored. In 1912 there were only five female members of the Vereeniging tot Bevordering der Geneeskundige Wetenschappen in Nederlandsch-Indië. There was also less interest among the native women to study to become doctors than in British India. In 1912 the first woman was admitted to STOVIA and two years later the second, so it was not highly popular. The difference between British India and the Netherlands Indies can be explained by the distressing situation of Indian women in the view of English women and men. *Sati* (child marriages) and *zenana* (polygamy) were known phenomena there, while at that time many Dutch and foreign authors were amazed at the independent position of Javanese women.[84]

[83] The Indies government in 1890, *Historisch overzicht* 1898:55; Soewardjo 1896:47-8; head of the Medical Service in 1902, Bijker et al. 1908:270; Boeka 1904:1009; the residents in response to the questionnaire in 1904, Bijker et al. 1908:271; Lumentut et al.1910:11-2; respondents in *Onderzoek mindere welvaart* 1911:90; Djarisah 1914:19.

[84] Greiner 1875:147; Poensen in *Onderzoek mindere welvaart* 1914:3. According to P.J. Veth (1875:358) Javanese women, in contrast to those in most Islamic countries, were just as free as women in Europe. Before his departure for the Indies in 1844, General F. von Gagern heard from former governor-general Van der Capellen about the great influence of women in the colony, Von Gagern 1866:261. Vreede 1960:44.

8

The medical market around 1915

THE COLONIAL POLICY

Changes in the colonial policy had consequences for the medical market in the Indies. Revision of the Constitution in 1848 granted Parliament greater influence. The Cultivation System was increasingly subject to discussion; better connections to the colony meant that negative reports reached the Netherlands faster than before.[1] The liberal MP W.R. van Hoëvell, an important critic of the colonial policy, heard the latest developments in the Indies from familiar names like W. Bosch (Borgers 1941:131). During the discussion in Parliament in 1854 of the Government Regulations – actually the constitution for the Indies – Van Hoëvell strongly criticized the corvée labour duties. The government decided not to expand the Cultivation System further. The colony then faded into the background until around 1860 when the discussion flared up again. During the debate the *Batig Slot* was not questioned, not even by the liberals who were against the corvée duties in the Cultivation System. They argued in favour of private companies that would be better for the natives. The conservatives swore that private companies would exploit the population and mean the end of the *Batig Slot* (Joop de Jong 2000:272-7).

While the Cultivation System was being dismantled, the number of private entrepreneurs rose. In 1870 the economic course changed. The Agrarian Law allowed private Western agricultural companies to rent land from natives or lease waste land for a long term from the government. It was not possible to buy land. The Sugar Law from the same year decreed that the government would slowly withdraw from sugar

[1] From 1840 the overland route; later, in 1856, the introduction of the telegraph and in 1869 the opening of the Suez Canal.

cultivation before 1891; the government retained control over its coffee plantations until 1915. Many private economic activities moved to the Outer Islands. On Sumatra and Kalimantan tobacco and rubber plantations, tin and coal mines and oil extraction were started. New agricultural companies in the Outer Islands, especially on the east coast of Sumatra, rapidly overtook the old plantations on Java. Of the three most important export products (rubber, oil and sugar), only sugar was still exported mainly from Java.

CHANGES IN THE CIVIL MEDICAL SERVICE

The dismantling of the Cultivation System affected the tasks of the civil servants: from plantation supervisors they became administrators (Van den Doel 1996:148). With the revision of the organization of the European civil service in 1866, the important position of director of Cultivation vanished. Four new departments were created in its stead. For this study the Department of Education, Religion and Industry is important. The scope of activity of this department reflects its striving to view the colony not just as a region to be exploited, but as a country with a population that needed looking after. The Civil Medical Service was one of the sectors of this department. The Civil and the Military Medical Service were still run by one head, but came under the Department of War (for the military version) and under the Department of Education, Religion and Industry (for the civil version). In this period the director of the relevant department took the lead more and more when determining civil health policy, resulting in the head of the Medical Service having increasingly less influence.

The outcome of the Military and the Civil Medical Service being one organization was growing tension. Proposals to partition them encountered financial objections (*KV* 1891:130). Also, the head of the Medical Service and the health officers objected. The head would lose the additional subsidy for his double posting, and the health officers would no longer be considered for desirable positions like those in the insane asylums, the Pasteur Institute, the *dokter djawa* school and the medical laboratory in Jakarta. Around 1900 all these posts, even that of Civil Medical Service inspector, were filled by health officers (Kohlbrugge 1909:395-6).

In May 1906 the board of the Bond van Geneesheeren in Neder-

landsch-Indië requested the governor-general to put an end to this unsatisfactory situation.[2] In the same year the government appointed the Commissie tot Voorbereiding eener Reorganisatie van den Burgerlijken Geneeskundigen Dienst (Commission charged with a reorganisation of the Civil Medical Service).[3] Its composition was criticized: the military element was overrepresented, resulting in the Commission being out of touch with the native society.[4] In June 1908 the Commission issued a detailed report that formed the foundation for the independent Civil Medical Service in 1911.[5] The new organization focussed more and more on preventative and hygienic measures (Sciortino 1996:42). As a consequence, they assigned the native doctors two functions: treating the sick and promoting hygiene. For the first function the doctor had to treat the patients at home, give their families instructions about the nursing care, and support parents raising children. A new aspect was that he was expected 'to battle ceaselessly against the charlatanism practised here by *dukun*'. At the same time he must collect as much data as possible about the work of the *dukun* and publish it in due course. Supervision of the *dukun bayi* was desperately needed, as their actions led to many deaths among women in labour and babies. He also had to collect insects and other material for the tropical medicine scientists and contribute to science himself: 'You as children of this country must not fall behind your European colleagues in researching the numerous, still unknown and inexplicable cases of disease'. In his second function, hygienist, he had to ensure the cooperation of the native administrators and point out 'everywhere and repeatedly' to the population the negative consequences of a lack of cleanliness of body, home and environment. This involved, for example, distributing accessible brochures about hygiene topics in the local languages. He also had to advise about the cleanliness of the market, shops, prisons and village schools.[6]

2 *Rekest Bond van Geneesheeren* 1906:14-7.

3 GB 3-12-1906 no. 15, *Protest reorganisatiecommissie* 1909:684.

4 According to Kohlbrugge (1909:395-6) there were only current and former health officers in it.

5 Bijker et al. 1908; *Ind. Stb.* 1910 no. 648, 649, 650; *KV* 1911:147.

6 These tasks were specified in the circular 1-6-1911 from the Civil Medical Service in Central Java (Van Haeften and Van Heel 1911:10-6). I assume that the situation in West and East Java did not differ much given the CMS's priority.

ETHICAL POLICY

The names P. Brooshooft and C.Th. van Deventer are inextricably bound up with the ethical policy.[7] The former was the chief editor of the widely read Semarang newspaper *De Locomotief*. Brooshooft, who was deeply impressed by the deplorable situation of the population during a trip around Java, petitioned twelve prominent Dutch people in 1888 to learn about the 'disastrous consequences' of the Dutch colonial rule. Upon his return to the Netherlands, Van Deventer, a long-time lawyer in Semarang, wrote an article in *De Gids* in 1899, entitled 'Een eereschuld' (A debt of honour), in which he argued for allowing some of the millions of guilders the mother country had extracted from the colony, the *Batig Slot*, to be used to help the native population: 'The restitution of the Indies millions, that is the debt of honour the Netherlands owes to the Indies, debt of honour because its discharge is required not by written legal grounds but by the higher law, which is called the law of honour and fairness' (Joop de Jong 2000:357).

The new ethical policy was officially announced by Queen Wilhelmina in the annual Royal Oration of 1901. The Netherlands 'as a Christian power' was obliged 'to imbue government policy with the understanding that the Netherlands has to fulfil a moral mission towards the population of these territories' (Van den Doel 1996:157). Therefore, politics should raise the population mentally and materially to a higher level of development, based on the Western model. The points of focus of the ethical policy were irrigation, transmigration and education. From irrigation and the construction of major hydraulic engineering projects, improved food production could be expected. From transmigration away from densely populated Java, a reduction in the population pressure and better means of subsistence for the migrants were predicted. Education was expected to produce the best welfare.

Ethical policy may have then become the official policy, but it did not mean that now all civil servants would act ethically. The department in The Hague issued a scathing official reaction to proposals from the director of Education, Religion and Industry, J.H. Abendanon, to improve the education available for natives. Abendanon was called by the department the 'director-utopist' and his proposals 'foolish' and 'too silly to pay much

7 This policy is comparable to the *mission civilisatrice* in France and *the white man's burden* in the UK.

attention to them' (Van Miert 1991:58). In the Indies as well, only a small proportion shared the ethical philosophy, primarily civil servants. It was not in keeping with the planters' entrepreneurial interests, which were primarily served by low wages. The fact that Governor-General A.W.F. Idenburg gave the native personnel in the palace an afternoon off each week was considered too soft by the (Indo-)Europeans (Breton de Nijs 1960:121). Over time, 'ethical' became a term of abuse, a synonym for weakness (Van Doorn 1994:74-5). After 1920 the word 'ethical' was fully discredited and its use avoided (Van Doorn 1994:219).

Despite ethical policy, Table 8.1 shows that the expenses for education and the Civil Medical Service contrasted harshly with that of other sectors.

	1904	**1909**	**1914**	**Total**
Civil Service	11,907	12,336	12,634	129,887
Construction projects excl harbour projects	11,537	13,778	26,026	171,582
Agricultural, animal husbandry, fishery	807	1,208	2,138	13,540
Education	4,906	8,306	13,116	90,301
Civil Medical Service	3,145	3,502	7,544	50,864

Table 8.1 Expenses for several departments in the colony (x *f* 1,000) (Van Doorn 1994:147)

THE MEDICAL MARKET

Compared with 1850 the medical market situation in 1915 had changed in a number of ways.

THE CONSUMERS

The population on Java and thus the number of potential consumers of 'products and services' from the medical market increased greatly in this period.

	Natives	Foreign Orientals	Europeans	Total
1850	9,420,553	147,168	16,409	9,584,130
1905	29,715,908	317,183	64,917	30,098,008

Table 8.2 Population of Java and Madura in 1850 and 1905[8]

Taking care of oneself when ill was still common, also among Europeans. J.H.F. Kohlbrugge (1917:12), a physician with extensive Indies experience, warned Dutch doctors before they set off for the Indies, 'The physician who has just arrived from Europe is struck by the fact that almost everyone has some medical expertise. Many have lived for years in settlements without a physician and have had to treat themselves, their family and personnel, so many have only a paper doctor [handbook].'

THE SUPPLIERS

In comparison with 1850, there were new suppliers of products and services on the medical market in 1915. The number of private companies had increased, and they needed medical care for their personnel. The missionaries who founded their own medical facilities at the end of the nineteenth century formed a new party on the market. Also new were the *dokter djawa* and the native midwives. Of the 'old' suppliers the *dukun* still formed the largest group.

DUKUN

The strong position of the *dukun* on the medical market left the other suppliers with a decision to make. They could ignore that strong position, they could attack it by discrediting the *dukun*, or they could accept the *dukun*. Most Europeans probably chose the first option, which is why the European sources mention the *dukun* so rarely. But there were also European physicians who considered them a serious threat to Western medicine and its practitioners. In the preceding chapter enough has been said about Van Buuren and his crusade against the *dukun bayi*. J. Kwast,

8 *KV* 1849:4-7; *KV* 1907:appendix A. The composition of the population in 1915 was not recorded in either *KV* 1916 or *KV* 1917.

a civil physician in Krawang around 1900, felt that *dukun* took advantage of every failed intervention of a Western-trained physician in order to produce negative publicity.

> If we really want to seriously establish European therapy, failure will have to be avoided as far as possible. Every patient who is not cured offers ten times as much evidence as a cured patient among the conservative, difficult to convince village inhabitants. Each case like that is naturally used as negative publicity by *dukun*, etc. (*Onderzoek mindere welvaart* 1911:89)

From a well-educated native head Kwast had heard that *dukun* were spreading a rumour that the terminally ill were being poisoned in hospitals to finish them off quickly. It was also whispered that European surgeons just started cutting away, without asking the patients' permission (*Onderzoek mindere welvaart* 1911:91). In the novel entitled *Doekoen* by Madelon Székely-Lulofs, an idealistic Dutch surgeon in the coolie hospital of a company is in conflict with a female *dukun* who turns the natives against him. The novels by Székely-Lulofs, who lived in Deli for many years, are known for their authenticity.

Some accepted the strong position of the *dukun*. The previously mentioned physician Kohlbrugge (1917:12) advised doctors who wanted to go to the Indies not to oppose the *dukun* but to study the indigenous remedies and apply them because many of them were useful. A certain recognition of their position is also evident among those who wanted to train the *dukun bayi* according to Western insights. In the view of J. Schülein, civil physician in Tosari (Pasuruan) and board member of the Bond van Geneesheeren in Nederlandsch-Indië, each hospital should employ at least one qualified *dukun*, who could apply Javanese treatment methods. They would have to be supervised by a European doctor, 'who would correct their mistakes – but could also learn from them' (Schülein 1903:7). This reciprocity is practically unique. In his blueprint for an independent Civil Medical Service, W.Th. de Vogel (1906:39) envisaged training the *dukun*, because the population would not make use of Western physicians.

The general contempt of Europeans towards the *dukun* did not apply to the ethnographers G.A. Wilken, J.P. Kleiweg de Zwaan and L.Th. Mayer.[9] Mayer considered it normal that the *dukun* had little knowledge

9 Respectively, Van Ossenbruggen 1912; Kleiweg de Zwaan 1916; Mayer 1918.

about the human body because surgery was forbidden, but he was surprised to note how much knowledge a *dukun* did have and thought it unfair that they were always classed with the uneducated charlatans. He was not a doctor himself, but referred to experts such as C.L. van der Burg and C.H. Stratz, two famous medical specialists in the Indies, who had expressed their approval of the *dukun* (Mayer 1918:5-6).

Estimates of the number of *dukun* and *dukun bayi* around 1900 vary. The Colonial Report for 1894 stated that there were 17,639 *dukun* in Java and Madura (*KV* 1894:appendix A.IV); in later years no figures are given. That is considerably fewer than the 33,000 estimated by the regional administrators in a survey in 1902 that assumed one *dukun* per village (Bijker et al. 1908:265). The total population was about 28.3 million, which averaged one *dukun* for every 850 people. These figures are low in comparison with the ones from the study conducted at the beginning of the 1970s in Serpong, a district in West Java. At that time, the district had about 55,500 inhabitants spread over 15 villages. Almost all deliveries, 96%, were assisted by the 77 *dukun bayi* (Lubis, Borkent-Niehof and Pudji Astuti 1973). That would mean five *dukun bayi* per village and an average of one *dukun bayi* for 720 people, in addition to the 'ordinary' *dukun*.

CHINESE HEALERS

In 1913 Boorsma was struck by the large number of apothecaries in a Chinese neighbourhood. He discovered that their knowledge was greater and their range of products wider than those of their native colleagues. Although the government did not exercise any control over them, they took their profession seriously. When preparing prescriptions, the apothecaries mostly applied the doctrine of signatures. Many also treated patients and were even called doctor (*sinse*).[10]

The Chinese medicines were well-known far and wide: in April 1903 the population urged the resident of Jakarta to employ a *sinse* as the resident of Surabaya had done to combat malaria, cholera, and especially the leprosy epidemic, and they could recommend a certain *sinse*.[11] Some *sinse* had special medicines with which they successfully treated sick patients who could not be cured by European physicians. Sometimes they

[10] Boorsma 1913:45-50; from 1 January 1905 he was head of the pharmacological laboratory, part of the Botanical Garden in Bogor.

[11] Report in the newspaper *Pemberita Betawi*, Rizal 2004:27.

would sell their prescriptions, but not that often. After years of research A.G. Vorderman (1890:9) discovered some formulas, which he published. In another instance the governor-general asked the Vereeniging tot Bevordering der Geneeskunde for advice about whether it was desirable to start negotiations with the Chinese healer Tjo Kim Bin in Surabaya about buying his treatment method for leprosy. The general conclusion of their recommendation was that his method would have to be considered 'innocent (?) quackery'. Therefore, the governor-general decided not to pursue that course.[12] Other doctors, in the Netherlands as well, were scientifically interested in Chinese preparations.[13]

The competition continued to increase, and sometimes it was unfair, as the government persisted in regulating only Western medicine and its practitioners. The civil physician in Kediri, Van Buuren, reported competition from Chinese dentists. After a Chinese man had trained with a European dentist, he established a private practice and charged lower fees than the European dentist. The Civil Medical Service inspector Vorderman accused a Chinese man with setting up an unauthorized dental practice in Jakarta. In both cases the government did not take any steps (Van Buuren 1898b:18, 20).

The Colonial Report for 1894 mentioned 241 *sinse* on Java and Madura and 198 in the Outer Islands. On Java almost half of them were established in Jakarta (84) and Surabaya (29); in the Outer Islands there was a high concentration in the residencies of Sumatra's East Coast (67), Western Kalimantan (41) and Riouw (26) (*KV* 1894:appendix A.IV).

EUROPEAN DOCTORS AND MIDWIVES

Around 1900 there was a shortage of European doctors, given the increased number of Europeans in the colony and the ethical policy that introduced new tasks. In 1902 the need had grown so great that the army administration issued a circular cancelling all leave in Europe.[14] The

[12] *Jaarverslag over 1903* 1904:XVI; in the same report: LXXII F.S.W. van Hasselt discussed the leprosy treatment of Tio Kim Bing.

[13] Vorderman (1890:11-4) named: J. van der Wiel, apothecary in Batavia, 'Chineesch geneesmiddel tegen diphteritis', *GTNI* 1881:303-6; H. Wefers Bettink, 'Obat orang sakit lehen [leher]', *Nieuw Tijdschrift voor de Pharmacie in Nederland* 1887:171- 6, 'Chineesch middel tegen diphteritis', *Nieuw Tijdschrift voor de Pharmacie in Nederland* 1888:20-3; J. Douwes, military apothecary, 'Het onderzoek van de 4 poeders van de Chinees Si Mah In te Batavia', *GTNI* 1887:232-44.

[14] D.A. Boon, 'Boek der herinneringen', manuscript KITLV, 1934 edition, 104.

shortage of healers produced tension between European physicians and the colonial government. In particular, Director of Education, Religion and Industry Abendanon received much blame. Often European physicians charged with the Civil Medical Service covered more than one district without receiving a higher allowance. In 1902 the board of the Bond van Geneesheeren in Nederlandsch-Indië asked the governor-general whether this was official policy and considered fair. This step was brought about by the situation in Pekalongan, where due to transfer of the *dokter djawa*, the civil physician H. Koppeschaar was not only in charge of the Civil Medical Service in the main town of Pekalongan but also responsible for the district of Batang. It was impossible to carry out his tasks properly in both districts, so he had to abandon his private practice.[15] This was clearly an excessive burden, but the chair of the same Bond van Geneesheeren, W.J. van Gorkum (1904:11), also complained about competition: 'Let us not forget that on Java the competition among the doctors increases day by day'.

According to the head of the Medical Service, M.Th. Reiche, the interest among European midwives to work in the Indies increased greatly around 1875; 'the profitability of the position' would explain this.[16] We noted before that European midwives in the Indies earned as much in a month as their colleagues in the Netherlands did in a year. The board of the Bond van Geneesheeren recorded an excess of European midwives, who competed fiercely. It is alleged that they carried out forceps deliveries unnecessarily to promote their expertise. When they were reminded of their obligation to summon a physician for complications, they said that 'nothing like that had ever happened', but the following year there were suddenly no complicated deliveries (*Bond van Geneesheeren* 1910:92-3). The competition apparently existed not only between midwives but also between midwives and physicians. Just like in the Netherlands the rivalry focussed on the use of obstetric instruments. The figures do indeed reveal an increase in the number of private midwives: from 11 to 14 between 1876 and 1879 (*KV* 1876:122; *KV* 1879:121). This was probably due to the larger number of European women in the colony. The midwives were mostly located in the larger towns on Java (eight in Jakarta, two in Surabaya and one each in Bogor,

[15] *Rekest Bond van Geneesheeren* 1903:23-7.

[16] His recommendation to the director of Education, Religion and Industry 28-6-1873 no. 994, *Historisch overzicht* 1898:34.

Semarang, Yogyakarta); the only smaller place with a private midwife was Bondowoso (Besuki) (*KV* 1880:103).

EUROPEAN LAYPEOPLE

Kohlbrugge (1917:12) had already pointed out that many people in the Indies treated themselves using a paper doctor. He was referring to the recipe books published by Indo-European ladies at the end of the nineteenth century. *Boekoe obat voor* [sic] *orang yang toewa dan anak-anak* (Book with medicines for young and old) by *nonja* van Gent-Detelle appeared in 1875 and was already in its fifth edition by 1883. *Doekoen djawa oetawa kitab dari roepa-roepa obat njang terpake di tanah Djawa* (Javanese *dukun* or book about all sorts of medicines used in Java), written by *nonja* van Blokland, appeared in 1885 and had a third edition in 1899. It is surprising that both books enjoyed a certain popularity, as testified by the reprints, because the first contains around 500 prescriptions and the second 1800, one after another without any arrangement. Not all ladies wrote; some only had practices such as 'mother Abbink' in Surabaya and Mrs. Stoll in Semarang (Kohlbrugge 1910:81). A physician anonymously published the diet for gastrointestinal diseases from the latter.[17] The best known author was J. Kloppenburg-Versteegh. In contrast to the other two, she did not use the Indies title *nonja,* which is how married European women were addressed, and she did not publish in Malay. Clearly, the European population group was growing so much that the number of Europeans who did not know Malay had also increased. Various reprints were made of her book *Indische planten en haar geneeskracht* (Indies plants and their healing properties), published in 1907,[18] including an edition in Malay in 1928. Rob Nieuwenhuys described its importance for planters in the interior where there was, 'No doctor, just a *dukun* or the advice of old Indies or Indonesian women or the herbals of Mrs. Kloppenburg-Versteegh' (Nieuwenhuys 1972:342). Her books were consulted frequently and even revered (Nieuwenhuys 1972:602). They are a miracle of order in comparison with the books of her predecessors.

Most European physicians wanted nothing to do with these ladies.

[17] *Indisch dieet* 1895.

[18] In 1907 two editions appeared that differed more from each other than the reprint in 1911. The latter was given another title, *Wenken en raadgevingen betreffende het gebruik van Indische planten, vruchten enz* [Tips and advice regarding the use of indigenous plants, fruits, etc.].

Mrs. Kloppenburg-Versteegh (photo collection KITLV 15369)

Health officer J.G.X. Broekmeyer (1856:39) wrote as early as 1856, 'The many native *nonja*, who administer medicines now and then, and some of whom have a certain reputation, have if it's possible even less knowledge about matters than the *dukun*'. The physician C.L. van der Burg, also anything but positive, devoted four pages in his standard work, *De geneesheer in Nederlandsch-Indië* to lambasting the evil that these ladies wrought. He hoped to warn the European physicians newly arrived in the Indies, but he did not have any illusions that his writing would have any effect, conceding that this 'large group of amateurs in medicine' was held in high esteem by all the Europeans. The head of the Medical Service, G. Wassink, called some of these ladies 'shorthand prescription books in parchment covers'.[19] In his official speech at the 25-year anniversary of the Vereeniging tot Bevordering der Geneeskundige Wetenschappen in Nederlandsch-Indië in 1877, Van der Burg (1877:20) repeated these '*bon mots*'. The Bond van Geneesheeren even considered establishing a society against quackery in response to Kloppenburg's book, but decided against it when it noted the lack of legislation in this field. Instead, it reviewed the book and denigrated it as 'a worthless pamphlet' (Benjamins and Damsté 1907:15-25).

There were also European physicians who appreciated these ladies, such as Vorderman, at that time the third municipal physician in Jakarta. He strongly criticized the standard work of Van der Burg: 'Dr. Van der Burg repeatedly scoffed at Mrs. van Gent's booklet, but he could have learned a lot from it, at very least the names of indigenous medicines' (Vorderman 1886:18). Vorderman (1886:23) considered *nonja* Van Blokland's booklet invaluable for anyone interested in the study of native therapy or pharmacology. Kohlbrugge (1910:81) described how the head of the Medical Service, 'active at the time of my arrival in the Indies, told me that he had more faith in *nonja* X than in his colleagues'. He himself considered 'the use of indigenous medicines by wise European ladies' as competition, but he felt it was unfair to oppose it. It made more sense to gain knowledge about their remedies and apply them because many were useful (Kohlbrugge 1917:12).

The popularity of the books written by these ladies made some European doctors overly critical. Probably they were afraid of the competition: after all, the books could only be used by people who could

[19] Wassink in a footnote in Bernelot Moens 1863:202.

read, primarily Europeans, who were their potential patients. Their commentary also evidenced a touch of racism and sexism: the ladies were Indo-European. They were strangely silent about other lay doctors such as the male European *controleurs*.

At locations where there was no medical assistance, medicines had always been provided to the *controleurs* with a 'paper doctor' serving as their guide, a thin booklet with instructions for the most commonly occurring diseases and the most widely requested medicines, a situation that continued until the Second World War.[20] H. Doeff (1896:106) described that when on an inspection tour; he first presided over a court and then dealt with the sick.

> Carbolic soap, iodoform, plasters and cotton wool were produced, and the *controleur* is promoted to doctor. – One person needs bandaging, - another asks for a remedy against stomach-ache or worms. The office is transformed into an apothecary, bottles of castor oil with laudanum solution are given out; large groups of elderly gentlemen desire a remedy for rheumatism. A strong smell of medicine fills the air.

Often the *controleur*'s wife carried out this role, such as Saar Lulofs, the mother of the writer Madelon Székely-Lulofs, who had been trained as a nurse before departing for the Indies around 1900. When her husband was appointed *controleur* at Lake Maninjau (Sumatra's West Coast), she held an outpatient clinic twice a week. In the beginning she did not have any patients because they all went to the *dukun*. Finally, a seriously injured woman turned to Saar Lulofs as a last resort; the woman had spilled a can of boiling sugar syrup over her leg and the wound had begun to fester after the *dukun* covered it with clay and banana leaves. Saar Lulofs agreed to treat her only if she moved into one of the servant's quarters temporarily. After a family consultation, she was given permission to do so. Three months later she returned healthy and well to her village. From then on, the sick and wounded flocked to Saar's improvised clinic. When she did not know what to do for a particular disorder, she would contact the health officer in Bukittinggi through the primitive telephone connec-

[20] Jongejans-van Ophuijsen 1936:47. From 1890 students training to be civil servants in Delft – who were aiming at the potentially isolated posts – took a course in bandaging and elementary surgery, Brinkgreve 2009:51.

tion, who would mostly prescribe quinine pills, castor oil or balsam of Peru (Okker 2008:28).

Caregiver	**Number in 1900**	**Number in 1850**
Dukun, incl *dukun bayi*	33,000 (?)	11,421 (1884)
Chinese doctor, *sinse*	241 (1894)	268 (1884)
European health officer charged with CMS	15	19
European physician (municipal, private, civil)	8+ 38 + 42	5+15+9
European physician + health officer in special functions	Ca 20	3
European apothecary (municipal, private)	2 + 41	3+9
European dentist	8	0
European midwife (municipal, private)	4 + 30	4+?
Native midwives (with/without allowance; throughout the Indies)	36 + 6	0
Dokter djawa in government service	90	0
Dokter djawa in private service	4	0

Table 8.3. Number of medical caregivers for the CMS on Java around 1900[21] and 1850

Comparison with the table from 1850 shows three new groups of suppliers on the medical market: European dentists, native midwives and *dokter djawa*. The figures are not necessarily accurate, but there are a few evident developments. The number of private European physicians, midwives and apothecaries had increased. This was associated with the increase in the number of European consumers. The number of natives and Chinese also rose in this period; probably this also led to an increase in the number of their healers, but relevant data are lacking.

[21] *KV* 1901:appendix T; *Almanak Nederlandsch-Indië 1900*. Numbers for 1850 are given in table 2.1. According to Pols (2009:178) there were slightly fewer than 300 European-trained physicians in the Dutch East Indies in the 1880s; by 1900, this number had risen to almost 400. It may be presumed that in his numbers Pols includes the military physicians.

THE HEALTH CARE FACILITIES

Along with the caregivers there were other suppliers of products and services on the medical market, and different types of hospitals and clinics supplied health care.

MISSIONS

In the beginning of the nineteenth century, the government continued the non-intervention policy of the VOC in Islamic areas. According to the Government Regulations from 1854 (article 123), a missionary could work in the archipelago only after obtaining permission from the governor-general. At the end of the century, the policy changed. Missionary work and missions had been found to be beneficial for promoting health care and education. The ethical policy favoured the missions, certainly with a Christian politician like A.W.F. Idenburg as minister of Colonies and as governor-general; he played an important role in the colonial politics for an almost unbroken stretch between 1901 and 1919. Being a good Protestant and endorsing the ethical policy, he envisaged a role for the missions in the fields of education and medical care (Houben 1996:73-4). His firm support of the missions aroused irritation because it was feared he wanted to convert the Indies to Christianity by force. Part of the press and some politicians labelled Idenburg 'the fanatic on the throne' (Schouten 1980:14).

In the second half of the nineteenth century, the missions started work on Java. Every missionary society had its own territory in the Indies where missions were run, funded by subsidies from a religious community in the Netherlands. In the beginning the missionaries were generalists: preacher-teacher-doctor. Before a missionary was sent out, he followed an elementary medical training (Wijkhuis 2006:45). Medical care was found to be an effective and easier manner of gaining contact with the population and winning souls. When the missionary S. Coolsma arrived on Java in 1865, he was assigned to Cianjur (Preanger) just before a cholera epidemic broke out. As there were no other medical facilities, the population turned to Coolsma, who had a well-stocked medicine chest and a few simple instruments. Over time visiting the sick became an important part of his work; he had 50 patients per day (Coolsma 1924:55-6). Only in 1893 did the missions send out the first physician, J.G. Scheurer.

Mojowarno and Yogyakarta were two showpieces of the medical missions. Both lay in the Principalities, which had been closed to the missions the longest by their rulers. The sultan of Yogyakarta didn't give up resisting until 1890, and then only if it would not lead to commotion or disturbance of the peace (Margadant 1897:390).

MOJOWARNO

In 1894 H. Bervoets and his wife, L.L. Bervoets-van Ewijck, were sent to the small missionary hospital in Mojowarno (Surabaya), which had a thriving Christian community. The couple were very active in training nurses and midwives. Along with subsidies from their religious community in the Netherlands, they received financial support from the nearby sugar factories, but the drop in sugar prices on the world market reduced or stopped this contribution (Bervoets-van Ewijck 1897:178). The hospital also received contributions from local regents: along with Mojokerto and Jombang, four others each donated five to six guilders per month (*Jaarverslag Modjowarno* 1898:108-11).

In the Indies each missionary, just like the *controleurs* in the interior, was given a box of medicines from the government.[22] Initially, Bervoets fell under the same regulation as a *controleur* and received only small quantities of the 'simplest medicines'.[23] At his request he was given the quantities of medicines he specified in 1895, at first incidentally but then consistently after 1896.[24] Bervoets and his wife could not cope with the flood of patients; at their request, a Christian *dokter djawa*, Ismael, was seconded to the hospital in 1898, and his salary was paid by the government.[25] The hospital in Mojowarno continued to overflow, necessitating expansion of the building and the staff. A second missionary physician arrived. The government subsidy was doubled from *f* 3000 in 1899 to *f* 6000 in 1901 (*KV* 1901:83). From 1906 government subsidies for private hospitals were permanently incorporated in the budget, and thus the missionary hospitals were also covered (*Ind. Stb.* 1906 no. 276). A description of the hospital from 1896 clearly shows its popularity: it was modern

22 GB 13-7-1894 no. 12, *Bijblad* 4992; two missionaries in Jepara had a case of medicines on hand from 1872, Archief Schoute Japara, 1872.

23 *Regeering en Modjowarno* 1898:12.

24 *Regeering en Modjowarno* 1898:12-4; *KV* 1898:86.

25 *Nogmaals Modjowarno* 1898:87-8; *KV* 1898:86.

and fully equipped according to scientific criteria, with instruments that could not be found in the government hospitals (Offerhaus 1896:357-60).

PETRONELLA HOSPITAL

The first missionary physician on Java, Scheurer, ended up in Yogyakarta after some wandering about, where he founded the Petronella Hospital in 1897. The mission's focus on the population is illustrated in an advertisement placed by Scheurer:

> The undersigned feels compelled to inform the European public that his duties as a missionary doctor do not permit him to run a civil practice, either inside or outside the clinic. He can only be consulted after discussion with and approval from the treating physician. (Wijkhuis 2006:35.)

Among the population Scheurer was known as *doctor toeloeng*, the doctor who helps (Van Kol 1903:783). In contrast to health officers who were frequently transferred, the missionary doctors remained working in one location for a long time and devoted themselves entirely to treating the natives, establishing a good connection with the population, which was an important precondition for building up trust among future patients.

His successor, H.S. Pruijs, invented the Petronella or Yogya system, which would later be a model for all missionary hospitals and for many hospitals outside the missions (Verdoorn 1941:148). It consisted of a centrally positioned hospital with clinics in the smaller towns or larger villages arranged in a circle around it, run by certified native personnel under the supervision of a physician from the central hospital. In a broad circle around the subsidiary hospitals, outpatient clinics were regularly held in the villages (Peverelli 1947:90). Part of this system involved training the personnel to be *mantri*-nurses and midwife-nurses. This was one of the most important tasks of the Dutch nurses in the hospital, and around 1900 one was Jo Kuyper, the prime minister's daughter (Van der Woerdt 2004:39-40). Because there was no missionary school in Yogyakarta, orderlies and other unskilled workers were trained there as hospital attendants (Sciortino 1996:31). They were primarily men who could be more easily employed in the outpatient clinics than women who were tied more to their homes. The *mantri*-nurses were also called assistant doctors or village doctors (Sciortino 1996:35-6).

Indische arts Zainal in front of an outpatient clinic (Zainal 1926:320)

COMPANIES

The Agrarian Law of 1870 led to an influx of private companies whose business interests required the provision of medical care for their engineers and workers. Despite offering a good salary, it was difficult to attract engineers from the Netherlands because of the unhealthy climate and the minimal medical facilities. In addition, there was enough work in the Netherlands (Ravesteijn and Ten Horn-van Nispen 2007:280). Good medical care for the engineers and their families was thus essential. The companies usually concluded a contract with a doctor who in return for 75 to 100 guilders per month was obliged to treat ten to fifteen families, mostly of the European personnel; the doctor generally only saw the native personnel when there had been accidents (Kohlbrugge 1917:7). The relationship between the company and the European physician could become tense, especially because for many European doctors the contract with the companies provided their main income. For example, in 1901 ten sugar factories in Jombang (Surabaya) had an arrangement with the local civil physician, J. Coronel. This lasted until the end of 1904, when a conflict with the president of the group of sugar manufacturers brought

A *dokter djawa* in the outpatient clinic of a kapok company in Central Java in 1927. From the clothing the *dokter djawa* is probably the one who is watching. (photo collection KIT)

it to an end (Schülein 1905a:23; 1905b:47-80). In another instance, the company was in charge of the hospital and decided who would be employed as a nurse and who could be a patient. The European physician felt excluded. Although he considered resigning, he did not sign the submitted letter.[26] This does not allow us to determine how the situation ended.

A 1890 circular from the director of Education, Religion and Industry to the regional administrators stated it was forbidden to admit employees of private companies to the native hospitals outside the three main towns.[27] As companies were established outside the towns, they had to arrange medical care for their employees themselves. Some used the missionary hospitals, and a few even built their own hospitals; in 1900 there were three company hospitals on Java (*KV* 1902:appendix R). From 1900, sick natives from private companies were admitted to the native hospitals if there was space and the relevant company paid the nursing

[26] X, 'Over de verhouding van geneesheer tot ziekeninrichting', *Bulletin van den Bond van Geneesheren in Ned.-Indië.* 1911:3-8.

[27] Circular 6-10-1890, *KV* 1891:134.

fees (65 cent per day) and any funeral costs.[28] The last remark did not bode well. However, this was an improvement, but it did not solve the problem for the companies. The Solosche Landhuurders Vereeniging (Solo Tenants Association) submitted a request to the government in 1902 asking for more *dokter djawa* and offering to help pay for new hospitals for natives (Kohlbrugge 1904:11-2, 17). The sugar manufacturers in Tegal and the surrounding region set up a society in 1911 with the aim of providing nursing care for the sick of all population groups working for the companies (*Vereenigingen* 1921:541). Some sugar companies happily employed personnel trained by the missions in their own hospitals. For example, a Javanese couple who had been trained as nurses in the Petronella Hospital worked around 1910 in a clinic of a sugar factory nearby (Van der Woerdt 2004:154). Years later the sugar syndicate rather bluntly expressed that medical care was one of the indirect means to promote profit (Stokvis-Cohen Stuart 1931b:486). Women and children were not included for a long period until an epidemic killed off many coolies (Stokvis-Cohen Stuart 1931b:483).

DELI

Employees from China, Malaya and Java were recruited for the plantations and mines on Sumatra; forced labourers were also employed. The working conditions were so bad that many coolies ran away. The entrepreneurs on Sumatra's East Coast asked the government to again make premature termination of an employment contract by the employee punishable. The government agreed and issued the Coolie Decree in 1880: an employer could punish a coolie for laziness or for running away. In the Decree the employers' obligations were also specified, such as the provision of accommodations and medical care (Lucas 1986:80-1). The planters in Deli combined forces to improve the health of their personnel. Around 1900, along with a number of central hospitals, one shared pathology laboratory was established in Medan, which would become known through the work of two physicians from the Senembah Company, W.A.P. Schüffner and W.A. Kuenen. 'Coolie-diseases' such as dysentery and cholera were eradicated (Bossenbroek 1996:59). Peverelli (1947:93), who was head of health care in West Java just before World

[28] GB 21-9-1900 no. 20, *KV* 1901:83; Kohlbrugge 1904: 3.

War II, said, 'One of the most splendid and classic examples of what rational care for the public health is capable of in the tropics was provided by Deli, especially the Senembah company'.

This praise contrasted strongly with the misery described by the lawyer J. van den Brand in his brochure *De millioenen uit Deli* (The millions from Deli, 1902). This booklet and the fuss it generated forced Minister of Colonies Idenburg to order an investigation of the working conditions in 1903, which was conducted by the public prosecutor J.L.T. Rhemrev. The Rhemrev report described a large number of disconcerting cruelties and was kept a secret until the 1980s.[29] During the budget debates in the Lower Chamber in November 1904, the social-democrat H. van Kol quoted from Van den Brand's brochure:

> [A]nd then the hospital of a coffee company where a pestilent stench issued from a lattice window and derived from two Javanese men, eight Javanese women, all fatally ill and a corpse that had been lying there for 24 hours, all crushed in a space of a few square meters, without water, without a toilet bucket, where they relieved themselves on the ground, mixed it with sand and then shoved it outside through a crack. (Idema 1924:180.)

In Deli, unlike in Java, some said midwifery assistance was provided for the employees: as many deliveries as possible were done in the central hospital under the supervision of a *dukun bayi* (Haneveld 1989:76). This does not match the description of the situation in Deli at the start of the twentieth century given by Madelon Székely-Lulofs in her novel *Doekoen,* which is assumed to be true to life.

GOVERNMENT HOSPITALS

Native hospitals established by the government were intended primarily for nursing the sick who had been in conflict with the police and the authorities or had displayed immoral behaviour, such as prostitutes, prisoners, mentally ill patients and forced labourers, along with seriously injured patients and those with contagious diseases (Kohlbrugge 1904:4). The hospital itself was not attractive: 'Gloomy walls of tarred bamboo,

[29] Van Doorn 1994:33-4. In 1987 Jan Breman brought this into the open in his thesis: *Koelies, planters en koloniale politiek.* Dordrecht: Foris.

here and there partly mouldy, ravaged by insects, without light, with hard wooden beds, on which lay grimy yellowish brown mats, hard leather rolls as pillows, dirt floors, here and there marked red from *sirih* spitting' (Degeller 1910a:1-7). The reports of the Civil Medical Service inspector form a series of wretched descriptions: 'The entire clinic is an old hovel'; 'The woodwork is mouldy in places, and […] warnings ring out in the prostitutes' ward to bring a strut quickly to shore up the roof'; 'The stocks of drinking cups and tinned food are rusted through in places'.[30] The description of conditions in the municipal clinic in Semarang paints a similarly gruesome picture. The contagious diseases ward was the entrance hall to the mentally ill ward. The municipal physician W.Th. de Vogel, together with the *dokter djawa* on duty one night, gave a subcutaneous transfusion of saline solution to a newly arrived cholera patient who was fatally ill. The mentally ill patients were woken up by this and began to shout, scream and curse from the bars of their cells. The patient died during this infernal racket, 'and his last impression of life was this scene, resembling a description of Dante's hell'.[31] It was thus not surprising that natives were not keen to be admitted. 'Decent kampong-women' would in any case not let their men go to a clinic where prostitutes were being treated (Degeller 1910a:3). L. Steiner, municipal physician in Surabaya, compared the government clinics and the one in Mojowarno:

> I have been to Mojowarno. What a contrast with our municipal clinic! A friendly, open building, no neighbours nearby, no enclosing wall, no bolts or iron bars. The patients move about without restraint! The sick: all of them simple village inhabitants; no forced labourers, no prostitutes, not one orderly and especially: no restless mentally ill patients. Once you have seen Mojowarno, you are no longer surprised to hear that the natives, who abhor the municipal clinic, like to be admitted there. (Verdoorn 1941:124)

Under the influence of the ethical policy, the government felt increasingly responsible for the health of the inhabitants. In 1901 the native hospitals were opened to poor natives. However, almost all natives could

[30] Report 8-11-1902 on Jombang; report 18 and 20-7-1903 on Bandung; report 5-9-1903 on Tasikmalaya, Bijker et al. 1908:199, 200, 202.

[31] Peverelli 1947:18; unfortunately, he does not give a source for this quotation.

be labelled 'poor'.[32] In the native hospitals status was not respected, as in Europe, with all associated consequences: a *mandur* would not lie next to a coolie, and a district head definitely would not (Degeller 1910a:3).

NEW FACILITIES

Around 1850 most native mentally ill patients were cared for at home. Only a small group could be accommodated in prisons or institutes in the three main towns: the Chinese hospitals in Jakarta and Semarang, the municipal clinic in Semarang, the municipal clinic and the Pegirian poorhouse in Surabaya (Bauer and Smit 1868:33-5, 38). The European mentally ill patients stayed in a ward of the military hospital in the three main towns: in Jakarta from 1836, in Semarang from 1849 and in Surabaya from 1863 (Den Hertog 1991:62). In 1865 it was decided to establish two mental health hospitals, one in West and one in East Java.[33] Shortly thereafter, two European physicians were sent to the Indies to design the buildings and arrange for the mentally ill patients (*Krankzinnigenverpleging* 1918:446). They were allowed to take their time. First of all, they visited a number of insane asylums in Europe. In 1867 they arrived in the Indies, and a year later they issued their report (Bauer and Smit 1868). It was decided to establish an institute with 400 beds near Bogor, but construction only started in 1875 (Latumeten 1936:39). In 1882 some of the hospital was in use (*Krankzinnigenverpleging* 1918:446), with two European physicians and a part-time *dokter djawa* working there in the beginning.[34] Nursing personnel were trained there (*KV* 1899:122; *KV* 1901:83). The male patients worked in a sawmill, a bookbinder's or a smithy, and the non-European ones often worked the land.[35] The women did sewing and household chores (*KV* 1897:151). With the opening of Bogor, it was decided to expand the mental health wards of the military hospitals in Semarang and Surabaya. Later, in 1901 and in 1906, these subsidiary clinics were abolished again[36] because a second mental health institute was opened in Lawang (Pasuruan) in 1902.[37] There was considerable criticism of the luxuriousness of this institute, especially as

32 GB 25-4-1901 and GB 6-6-1902, *KV* 1901:83.
33 KB 30-12-1865 no. 100, *Krankzinnigenverpleging* 1918:446; Latumeten 1936:39.
34 Besluit GG 9-3-1881 no. 34, *Ind. Stb.* 1881 no. 74; *KV* 1897:150.
35 In those days manual labour was considered typically native, Bosma 2010:108.
36 *Krankzinnigengesticht te Lawang* 1907:1292.
37 GB 23-4-1902 no. 22, *Ind. Stb*. 1902 no. 180.

there was an enormous shortage of normal hospitals for natives.[38] The need for good care of mentally ill patients remained so pressing that the budget for 1912 included auxiliary clinics for calm native patients near Lawang. They were meant to be run by native doctors and regularly inspected by a European doctor from the main clinic.[39]

Spas remained popular with Europeans and natives. The small private institute at the hot mineral springs in Krakal (Bagelen) was occasionally subsidized by the government (*KV* 1890:125). In January 1897 the head of the Medical Service charged L.J. Eilerts de Haan, director of the Vaccine Institute and the Pasteur Institute, with preparing a proposal for an institute for massage and mechanotherapy, which would be affiliated to the military hospital. In March of that year the institute was opened, with Eilerts de Haan (1898:288-96) as its director; he had earlier expressed interest in massage. In Bogor in 1880 a hospital was opened for native sufferers of beriberi. In particular, soldiers from Aceh were brought here (*KV* 1880:104). Although the cause of beriberi had been discovered at the start of the twentieth century thanks to research conducted in the Indies by C. Eijkman, G.Grijns and A.G. Vorderman, the hospital would exist for a long time.[40]

PRIVATE INITIATIVE

There were other initiatives to set up or maintain hospitals alongside the private ones from the missions and the companies. Native health care facilities were supported by a native tax, the *zakat*, especially in the Priangan. Islam requires the population to pay *zakat* to the village clergy. In the Priangan the regents, who enjoyed a type of self-administration (the Priangan system), enforced payment of the *zakat*.[41] If people from other districts were admitted to Bandung, Cianjur or Sumedang, the clergy from those districts paid the hospitals a fee of 15 cents per day from this *zakat*.[42] When the Priangan system was abolished in 1871, the *zakat* gained a more voluntary status, as elsewhere. This endangered the

38 Kohlbrugge 1904:17. The reorganization Commission spoke of 'too luxuriously outfitted', Bijker et al. 1908:120.

39 *Extracten begrooting 1912* 1911:7, 9-10.

40 It was still being referred to in 1917, *Geneeskundige Dienst* 1917:764.

41 The Priangan system dated from the VOC period; in it, the native population cultivated coffee under supervision of their own heads, Bosma 2010:274 n43.

42 Archief Schoute Preanger, 1865.

continued existence of the clinics, and the government took over their management.[43]

In several places the Chinese established hospitals, for example., in Tanjong Pinang (Riouw), Medan, Tanjong-Pura (Lower Langkat) and Binjei (Upper Langkat) (*KV* 1879:122; *KV* 1899:122). Various private sanatoria, including one in Gadok (later Sukabumi) and Sindanglaya (both in the Priangan) were subsidized by the government in exchange for admitting civil servants (*KV* 1879:122; *KV* 1886:104). In 1891 a health resort was opened in Tosari (Pasuruan) on a trial basis; treatment was in the hands of a health officer (such as Kohlbrugge and Schülein).[44] In 1905 the government revoked the subsidies for Sukabumi, Sindanglaja and Tosari against the wishes of the reorganization Commission.[45]

From the end of the nineteenth century, different European committees were founded with the aim to set up hospitals. In Jakarta the Vereeniging voor Ziekenverpleging in Nederlandsch-Indië (Society for Caring for the Sick in the Netherlands Indies) was established in 1895. It rented a building in which a deaconesses' hospital – also known as the Cikini Hospital – was opened; in the course of 1897 it was transferred to a better location. It cared for the sick of all classes and denominations; treatment was free of charge for the poor. Surabaya and Semarang copied this initiative in 1897 and Deli in 1899.[46] At the beginning of the twentieth century, a flood of such initiatives came into being. From 1906 the government structurally subsidized the private hospitals (*Ind. Stb*. 1906 no. 276). The new Civil Medical Service focussed more and more on prevention and hygiene; setting up and maintaining hospitals were no longer considered government tasks. The military hospital in Pelantungan (Semarang) in 1908 was turned into a leprosy clinic, and its management was transferred to the Salvation Army; the government continued to support it financially.[47]

There were also individual initiatives. The civil physician Kohlbrugge set up a native hospital during his posting at Sidoarjo (Surabaya), which was financed by Europeans. This seemed to him a good way of bringing Europeans and natives together after a riot in which many Javanese

43 Resolution 26-5-1871 no. 28, *KV* 1871:110; Schoute 1936:302-3.

44 GB 5-8-1891 no. 1, *KV* 1891:135; *KV* 1897:151.

45 GB 28-5-1905 no. 4, Bijker et al. 1908:63.

46 Respectively, Soerabaijasche Ziekenverpleging (*KV* 1898:93) and the Semarangsche Ziekenverpleging; Vereeniging voor Ziekenverpleging ter Oostkust van Sumatra (*Vereenigingen* 1921:541).

47 *Extracten begrooting 1912* 1911:10.

Sanatorium at Selabatu, Sukabumi (postcard from author's collection)

were killed. It was the only hospital in a region with 500,000 inhabitants. Soon Kohlbrugge (1910) and his helpers, whom he trained himself, were treating 6000-8000 patients per year.

FIGURES

In 1900 there were 110 government and 25 private health care facilities on Java. The government facilities consisted of military (17), native (59), leprosy (3), civil hospitals (10, including the former municipal clinics) and institutions for prostitutes (21). The last were abolished in 1911, along with the inspection of prostitutes. The private institutions could be classified into sanatoria (11), missionary hospitals (6), company hospitals (3) and leprosy clinics (5) (*KV* 1902:appendix R). At the end of 1916 there were around 50 private hospitals,[48] a doubling in 16 years. This illustrates the government policy of turning the management of hospitals over to private initiatives.

48 *Geneeskundige Dienst* 1917:765.

RULES OF THE GAME

The socio-cultural and socio-economic factors influencing the medical market around 1850 – here called rules of the game – remained in force in 1915.

ADAT AND RELIGION

Norms and values from *adat* and religion still determined the consumers' behaviour on the medical market. Javanese, convinced of the indivisible nature of the human body, were against surgery on principle. Kohlbrugge (1917:9-10) recommended giving the amputated body part back to the patient because in their animistic belief it was improper 'to leave it in the surgeon's possession'. The fear of the scalpel often faded after someone else had been successfully treated with surgery. 'It is typical of the Javanese that they must first have or know of an example of what the consequences of the surgery are before exposing themselves to the operation,' according to a native eye doctor who conducted Snellen operations under the supervision of the civil physician (Westhoff 1906:11-2). In this operation, eyelids that had turned inward were restored to their proper position.

Sometimes European physicians made use of the population's religious concepts to introduce certain measures. A nice example is provided by the cholera vaccination in Tasikmalaya (Priangan) in the beginning of the twentieth century. When cases of cholera were observed, the physician, A.J.C.J.P. Bakker, decided to vaccinate the population. He paid a call to the *patih* and the assistant-resident and asked them to assemble the people from the village the following morning. Before he started vaccinating, he addressed the crowd in Sundanese: the devil had sent the bad cholera spirits. Allah 'sent wise people, whom he had taught methods to expel the spirits'. The inhabitants were advised to drink only boiled water because 'the devils causing cholera lived in the water and could not survive boiling' (Bakker 1911:1-6). Religion was also abused: around 1920 German missionaries were thwarted by the Muslim population in the Moluccas. The inhabitants spread the rumour that their medicines contained pork (which is forbidden by Islam) (Heynneman 2002:127). In a village in the district of Kendal (Semarang), research into malaria had to be stopped because of opposition from

the population who had been told that they would be converted to Christianity.[49]

Sources around 1900 reported increased aversion among native women to male assistants during labour compared with 1850.[50] For difficult deliveries a European physician or *dokter djawa* was probably called in more regularly. Native women also had a general aversion to male physicians. During a cholera epidemic in Semarang in 1911, it was arranged for native women to be vaccinated with the cholera serum by their husbands while being supervised by a *dokter djawa*.[51] There was also resistance to hospitals in which men, too, were nursed. That is why Raden Adjeng Amirati, a daughter of Pangeran Adipati Ario Pakoe Alam VI, ruler of Yogyakarta, hoped for a hospital for women with female doctors.[52]

The government did not want female government physicians because they would not want to inspect coolies. N. Stokvis-Cohen Stuart (1913:5) considered this unfair: there were enough tasks for a female doctor, even if only examining female coolies. Apparently, the government had no difficulty with female coolies being inspected by male doctors, only with female doctors inspecting male coolies.

CLASSIFICATION IN RACES

The legal classification of the population into three categories (Europeans, Foreign Orientals and Natives) remained in force until the end of the colonial period. Just like in 1850, sufferers in this period sometimes called on medical assistance from another population group. In his memoirs Madé Djelantik (2001:104), a Western-trained Balinese doctor, described how in his secondary school period he had to pick up the Chinese family doctor Liem at night on his bicycle for his seriously ill European landlady, the wife of a teacher, where he was lodging in Malang around 1930. According to Opheffer, pseudonym of the resident of Rembang, G.L. Gonggrijp, (assistant)-residents' wives would allow themselves to

49 *Genees- en Verloskundige hulp in Nederlandsch-Indië* 1910:51.

50 The Indies government in 1890, *Historisch overzicht* 1898:55; Soewardjo 1896:47-8; head of the Medical Service in 1902, Bijker et al. 1908:270; Boeka 1904:1009; the residents in response to the survey in 1904, Bijker et al. 1908:271; Lumentut et al. 1910:11-2; respondents in *Onderzoek mindere welvaart* 1911:90; Djarisah 1914:19.

51 *Het Nieuws van den Dag voor Nederlandsch-Indië* 26-6-1911, p 6.

52 *Onderzoek mindere welvaart* 1914:appendix 5.

be assisted during delivery by a *dukun bayi* when they had no money.[53] Kohlbrugge worked in 1891-1898 at the sanatorium in Tosari and also had a private practice there. He was pleased with his 'obedient and grateful' Chinese patients; they paid on time and even sometimes gave a bonus (Kohlbrugge 1917:4-8).

In his book *Het leven in Nederlandsch-Indië* (Life in the Netherlands Indies, 1900) Bas Veth (1900:133) described the married life of Karel, a 'real' Dutchman, and Dora, the Indo-European daughter of an assistant-resident: 'Dora, an Indies child, venerated the *dukun* (female native doctor, skilled at this and that), who was repeatedly consulted by her mother about everything to do with the intimate life of women'. When Dora was newly married, the *dukun* visited her regularly, to the annoyance of her husband who considered every *dukun* a charlatan. When Karel was ill, the European physician was called. During her pregnancy Dora was monitored by the European physician, although she preferred a *dukun*'s help (B. Veth 1900:133-7). One married couple thus made use of both a European and a native doctor. Probably the husband preferred a European physician because he was a newcomer, and the Indo-European wife preferred a *dukun*, as had her mother.

HEALTH POLICY

It took a long time before the government felt responsible for the health of the natives. The director of Education, Religion and Industry, P.H. van der Kemp, issued a circular in 1890 to the regional administrators to let them know that the government's involvement with the health of the natives did not extend further than providing assistance during epidemics and acute endemic diseases. The medicines given by the government to *controleurs* were meant to be used only in epidemics.[54]

This attitude changed under the influence of the ethical policy. The government became involved from that point on with the well-being of the native population. Despite the fierce debates about improving midwifery assistance in the Indies, the government decided to give priority to general medical assistance. This resulted in the expansion of the *dokter djawa* school and new tasks being assigned to European physicians. In 1900 the civil physicians were requested in a circular from the director

53 Opheffer 1913:69. Gouda (1995:132) called Gonggrijp a confirmed ethicist.

54 Circular 6-10-1890 no. 9592, *KV* 1891:134.

of Education, Religion and Industry, J.H. Abendanon, to open an outpatient clinic for natives in their place of posting; a year later this was expanded to places in the surrounding area.[55] Because the physicians saw patients at the outpatient clinics who really needed to be admitted for intensive care, in 1901 the native hospitals were opened to all natives and not just forced labourers, prostitutes and mentally ill patients.[56] In 1902 Abendanon proposed making native civil servants with a monthly salary of less than *f* 150 eligible for free medical treatment, like their European colleagues.[57] Due to the shortage of doctors, this regulation could not be implemented until 1906. The group of eligible claimants was thus expanded enormously: on Java it encompassed 81,500 natives and 20,000 Europeans (Bijker et al. 1908:46). There was one difference: European civil servants were eligible for free medical and midwifery assistance, native civil servants only for medical assistance.[58] The government probably handled this on pragmatic grounds, frugality or both, assuming that the wives of native civil servants would prefer a *dukun bayi* to Western assistance.

The European physicians unleashed a storm of criticism against the measures because they considered it as adding to their duties. The Bond van Geneesheeren in Nederlandsch-Indië objected to the increase in tasks.[59] Criticism of the contents of the outpatient clinic proposal came from Kohlbrugge (1904:9), who called it an idea hatched under office lamps. However, sometimes government policy led to a reduction in tasks, such as abolishing the inspection of prostitutes in 1911. The inspections took a lot of time for the European and native doctors and made them and Western medicine unpopular among the population (Bijker et al. 1908:105-6). According to the reorganization Commission, in 1908 there were more institutes for sick prostitutes than native hospitals (Bijker et al. 1908:96). This is not supported by the figures given above, but it is clear that abolishing the inspections created a great deal of space in the hospitals.

55 Circulars 19-10-1900 and 26-1-1901, Kohlbrugge 1904:3; according to Bijker et al. 1908:119 it concerned circular 28-6-1902 no. 12408.

56 GB 25-4-1901 and 6-6-1902, *KV* 1901:83.

57 Circular from the director of Education, Religion and Industry 7-11-1902 no. 19530, Schülein 1903:1.

58 GB 5-4-1906 no. 65 and no. 66, *Ind. Stb*. 1906 no. 213 and no. 214.

59 Deye 1902:11-29; W.J. van Gorkom 1904.

NEW MEDICAL COURSES

As tasks in the Civil Medical Service were being increased, the need for doctors rose proportionally. To reduce the shortage, the capacity of STOVIA was expanded and new courses created. Kohlbrugge, a civil physician in Sidoarjo (Surabaya), started training assistant-doctors at the beginning of the twentieth century.[60] Then he submitted a request to the government for an official course for which the students would receive an allowance of *f* 15 per month followed by a salary of *f* 30 per month after obtaining their diplomas. The training physician would receive *f* 25 per year for each candidate. At the end of 1902, a trial of this course was initiated.[61] Aside from Kohlbrugge (1904:19-22), the civil physician in Kudus, the missionary doctor in Salatiga (both in Semarang) and one in Mojowarno took advantage of this training option (see also Duymaer van Twist 1911:10). This course and the *dokter djawa* course at the start in 1851 were nearly identical.

Around 1900, the director of the Institute for the Blind in Bandung, C.H.A. Westhoff, opened an outpatient eye clinic where poor patients could be treated for free. He was soon able to interest the government in his initiative. It began with a subsidy in 1901 (*KV* 1902:207); a year later he was given permission to set up a course to train eye doctors. It started in January 1903, lasted half a year and had room for 10 teenage boys, who received an allowance of *f* 10 per month.[62] The Department of Education, Religion and Industry specified the competence and obligations of these *dukun mata* in a regulation (*Bijblad* 6002). The title *dukun mata* is curious because it concerns teenagers educated in a Western course – even if brief. It was difficult to find students who met the admissions criterion of being fluent in Dutch (Kohlbrugge 1904:18). The graduates earned *f* 30 per month (Van Kol 1903:583). Westhoff (1906:13) trained a total of 20 *dukun mata* between January 1903 and the end of 1905, who were assigned after graduation to various residencies. The short duration was criticized (Van Effen 1905:37-48) as were the costs of this course, which could be better used for other purposes (Kohlbrugge 1904:18).

The level of nursing was low. In the military hospitals the nursing personnel consisted of the attendants (soldiers), occasionally referred to

60 *Verslagen Indisch Genootschap* 1907-8:190 (meeting 12-2-1907).
61 GB 22-12-1902 no. 8, *KV* 1903:205.
62 GB 17-9-1902 no. 27, *KV* 1903:205.

as 'hospital hyenas', hospital orderlies (corporals) and the medics (sergeant-majors) (Kerkhoff 1989:17). In the municipal clinic in Semarang, the nursing was done by the orderlies and soldiers' wives/concubines.[63] The head of the Medical Service, J. Haga, mentioned in a memorandum in 1904 that many nurses were 'coolies picked up off the street and *babus* [female servants] who steal from the Government'.[64] The situation started improving only at the start of the twentieth century. *Mantri*-nurses (male and female) were trained from that point on by hospital physicians, who were paid a bonus for this (*Geneeskundige Dienst* 1917:764). In addition, a number of private hospitals trained nursing personnel for their own institutions. The standard admissions criterion was being literate, which meant that in the beginning only men were admitted. The bad reputation of the municipal clinics, where the students would work after their course, did not help encourage the recruitment of female applicants (Sciortino 1996:96).

Of course, the reorganization Commission commented on the new courses. It regretted the fact that the government's advisors who had approved these courses – probably Abendanon was meant – did not know enough about the history of the medical sector in the Netherlands. They were referring to the different types of physicians in the Netherlands before 1865. The Commission was fiercely opposed to continuing the assistant-doctor and *dukun mata* courses.[65] Its recommendation was followed, and both courses were cancelled.[66] Given the great need for nursing personnel, the reorganization Commission felt that a new course would have to be energetically taken up (Bijker et al. 1908:28-9, 97). The course to train *mantri*-nurses (male and female) was polished up: a maximum of 100 students, who had completed a public primary school of the second class, could be trained in government or private hospitals by physicians, who would receive a bonus of *f* 500 for each successful graduate. During the three-year course, the students received an allowance of *f* 10-12 per month, and after their course a monthly salary of *f* 25 with five increases of *f* 5 every three years.[67] If they left government service

63 V.L., 'Inlandsch ziekenpersoneel', *Bulletin van den Bond van Geneesheren in Ned.-Indië* 1911:9-15.

64 Memorandum 18-11-1904, Bijker et al. 1908:96.

65 Bijker et al. 1908:28-9, 97. Saeban, a *dokter djawa* involved with the *dukun mata* course, vigorously defended it – unfortunately without success – in the *Preangerbode*; *Het Nieuws van den Dag voor Nederlandsch-Indië* dated 18-4-1910, p 2 copied his report with approval.

66 *Extracten begrooting 1912* 1911:14.

67 GB 16-1-1912 no. 98, *Ind. Sth.* 1912 no. 87.

within five years after completing the course, they had to pay back their allowance and the bonus paid to the trainer (*Inlandsch verplegingspersoneel* 1911:6-8). The government had apparently learned from its experience with the native doctors.

Implementing these plans did not solve all of the problems, however, as was apparent from the *Nota betreffende de noodzakelijkheid van verbetering van de ziekenzorg voor Javaansche vrouwen* (Memorandum on the need to improve health care for Javanese women), addressed by N. Stokvis-Cohen Stuart in 1914 to the governor-general. In her posting at Semarang, there was little interest in the nurses' course but considerable interest in the midwives' course. She explained that the profession of midwife garnered more respect and better financial prospects. Mrs. Stokvis proposed making the nurses' course more attractive by offering the best students the possibility of subsequently taking the midwives' course. In addition, a boarding school would have to be associated with the course, and European nurses would have to teach it. She rejected the proposed mandatory governmental employment because it would interfere with the wedding plans of young Javanese women (Stokvis-Cohen Stuart 1914:1-14). She probably hoped to raise the status of the course by employing European nurses. They enjoyed a high esteem in the Indies – just like in the Netherlands. European nurses travelled from the Netherlands to the Indies first class 'taking into account her [their] social standing of women belonging to the civilized class' (*Ind. Stb.* 1898 no. 104).

FIGHTING EPIDEMICS

The fear of an epidemic persisted. At the end of the nineteenth century, a series of rules, the quarantine regulations, were prepared against the transmission of contagious diseases from boats in port.[68] Sanitary measures were introduced onboard ships and in Jeddah to benefit the pilgrims (Peverelli 1947:22). In the description of the duties of the independent Civil Medical Service, fighting epidemics was the priority (*Geneeskundige Dienst* 1917:763).

During an epidemic there was usually a shortage of doctors, and more had to be sent to the afflicted region. In addition, final-year students from STOVIA were called on; eight were absolved from sitting

[68] *Ind. Stb.* 1871 no. 109; *KV* 1892:119; *Ind. Stb.* 1892 no. 44 and no. 45; *Ind. Stb.* 1897 no. 124; *Ind. Stb.* 1898 no. 329; *KV* 1898:89.

their final exam in recompense in 1911. Laypeople, called *gecommitteerden*, were employed; they were natives who could prescribe medicines and supervise the observance of hygienic measures in the village. This happened in Bagelen and in Majalengka (Cirebon) in 1882, in Banten in 1884 and in Demak (Semarang) in 1889.[69] To ensure that the medicines were being taken properly, patients whose condition allowed it were required to take their free quinine personally in front of a civil servant or *dokter djawa* in 1876 during the fever epidemic in Blora (Rembang) (Luchtmans 1876:334). Occasionally, government officials acted harshly. Victims were brutally dragged away, their household possessions burned or sometimes unnecessarily sprayed with creoline (a disinfectant). This caused the natives to offer resistance, even to the extent of killing the disinfectors (Degeller 1910b:6-9).

The recommendations of the *dokter djawa* and the *gecommitteerden* to keep home and yard clean during epidemics, to boil water and cover food formed the first attempts to introduce Western ideas about hygiene. The effect was probably marginal. A more important element was the improvement in the drinking water supply by boring artesian wells in the 1880s and 1890s in many towns and smaller locations (Gooszen 1994:308).

The epidemic diseases were malaria, smallpox, beriberi, cholera and plague. The last two in particular terrified the population. Cholera claimed many lives in a short time. The first municipal physician in Semarang, H.C.K.Th. de Ruijter, reported on the unexpected cholera outbreak in 1864: 'The Javanese consider it an evil spirit or devil, bringing death to thousands, and if we want to envisage this concept symbolically, then they are right; this is a suitable image expressing the malicious nature of the disease very well.' The Semarang municipal physician administered the standard cholera mixture.[70] Kohlbrugge did not want to distribute this cholera drink because it was ineffective. Western medicine would no longer be respected by the population as a result. He had a brochure prepared in Javanese in which he took advantage of the Javanese belief that the cholera spirit lived in the water and could only be killed by fire.[71] Therefore, he advised boiling the water. His recommendation was successful: people understood the idea, carried it out, and cholera

69 *KV* 1883:113-4; *KV* 1884:106; *KV* 1890:120.

70 'Verslag der cholera-epidemie te Semarang gedurende het jaar 1864', Archief Schoute Semarang.

71 See A.J.C.J.P. Bakker's approach in Tasikmalaya, Bakker 1911:1-6.

disappeared without medicines or carbolic being required (Kohlbrugge 1907:192). Businessman and author Bas Veth (1900:242-3) described a cholera outbreak in his own graphic way:

> The cholera raged as an epidemic. The natives in their compounds died like rats and mice. In the Chinese camp something was wrong, too; - every day five, six, ten cases. But the cholera had spared the European population of the region. (…) Then suddenly: a shock, fear running through the European community. Could you believe it: - Mr. A. has cholera. The first European to be afflicted by this horrible disease. (…) The body of the cholera victim was left lying there, and the families living nearby the deceased complained to the assistant-resident for the police, whining out of fear of cholera, claiming that the body had already begun to stink and the stench was driving them out of their houses. A letter was written to the warden of the prison: 'Arrange for several detainees to be there at 8 o'clock to bury the body of Mr. A.'.

It is typical of Veth and his disdain for the Indies that he emphasized that the Europeans considered it more awful that one European died than did many natives and Chinese.[72]

Despite all the precautionary measures there was a plague epidemic in 1911, which has been described in detail.[73] The large-scale campaign at the start of the outbreak produced great suspicion among the local population: 'The locals call the disinfection procedure an evil magic exercised by the Dutch'.[74] In some places the resistance against a spleen biopsy, to determine whether the plague was the cause of death, was so great that the *mantri*-information officials were stoned (Peverelli 1947:12). Attempts were also made to combat the plague with recommendations to improve the houses to prevent the rats nesting there. Hadjiwibowo, officer with the Royal Dutch Marine, described how his father worked as supervisor of housing improvement, part of the Department of Health. He had to ensure that bamboo poles were replaced by teak beams, as rats tended to nest in the hollow bamboo. His father was frequently transferred: he 'moved so to speak with the spread of the plague from east to west' (Beynon 1995:72).

72 With his grumbling, Veth was an extreme racist even according to the standards of 1900, Bosma 2010:205.

73 *Mededeelingen Burgerlijken Geneeskundigen Dienst* 1912.

74 Houben 1996:77. Unfortunately, Houben did not give a source.

Formally, the government did not exert coercion to implement measures aimed at improving the health of the natives.[75] For example, the population did not have to call in the native midwives if they did not want to. Nevertheless, rumours persisted that coercion was exerted, especially with the smallpox vaccination. Some Chinese administrators refused to issue passes to non-vaccinated Chinese, which they needed to trade outside the boundaries of their residency (Kohlbrugge 1903:27). Kohlbrugge stated that everyone in his district who did not turn up to be vaccinated was fined 1 or 2 guilders or sentenced to forced labour. In Banten the penalty was a maximum of 5 guilders. One native head told Kohlbrugge that if the natives had been aware of the official rules, no one would have let themselves be vaccinated (Kohlbrugge 1903:12-4). Vaccination took an entire working day and thus wages; therefore, they sometimes sent a substitute whom they paid. Young women in particular often sought replacements: '[T]hey refused to expose themselves in public, also they feel that their attractiveness could lead to trouble or their husband's jealousy could be aroused: our civil servants are not eunuchs' (Kohlbrugge 1903:15-6). Despite the extensive cover provided by the smallpox vaccination, epidemics still broke out regularly.

The rulers in the Principalities also had a certain health policy. They employed their own vaccinators (*KV* 1886:107); and one of them also had a native midwife. In addition, they maintained various institutes, sometimes with financial support from the inhabitants, including one for lepers (*KV* 1882:117; *KV* 1891:135). Prince Mangkunegoro VII established a hospital in Surakarta and several outpatient clinics outside the town (Van der Woerdt 2004:68).

CONCLUDING REMARKS

In comparison with the medical market around 1850, the position of the *dukun* in the native market of medical goods and services was still strong in 1915. Another constant element was the natives' resistance to Western medicine. From the survey conducted at the beginning of the twentieth century by the prosperity Committee, it seems that the

75 In the Cultivation System there was coercion exerted, the corvée labour demands.

population preferred to be treated by a *dukun* when ill and to take native medicines rather than European (*Onderzoek mindere welvaart* 1911:88). For the millions of inhabitants, there was only a handful of Western-trained doctors. In addition, the fee paid to a Western-trained native doctor was almost always higher than that charged by a *dukun*, and often there were additional travel expenses because of the distances involved. The *dukun*'s insinuations also had an effect. Kohlbrugge gave as an explanation that Western physicians did not speak the local languages and did not exert themselves to win the trust of the natives or understand their concepts of disease. There was also their fear of the scalpel, with which Western physicians were associated, even by educated natives, according to J. Kwast, civil physician in Krawang:

> A highly educated, very European-oriented native head informed me that the fatally ill patients were finished off by poison in the hospital. As such stories are spread by the *dukun*, naturally the villagers regard European assistance with distrust. Then people believe in general that a European physician stands there with a scalpel ready in his hands all day long and starts cutting immediately without bothering to ask if the patient approves. (*Onderzoek mindere welvaart* 1911:91.)

Another persistent mindset was the negative attitude of Western physicians towards the *dukun* and indigenous medicine. The independent Civil Medical Service clearly understood that the *dukun* was a formidable competitor. The native doctors were ordered – at least in Central Java – to combat the *dukun* on the one hand, while learning as much as possible about their treatment methods on the other.

Something else that had remained the same since 1850 was the imperfect separation between the population groups: sometimes the natives called in the assistance of a *sinse*, and the (Indo-)Europeans consulted a *dukun*. There are indications that in this period the reciprocal competition increased. The Chinese kept their formulas secret or would sell them only for large sums of money to physicians from another population group. It caused friction that the government regulated the European physicians and medicines, but not the Chinese and native ones, which made the competition 'unfair'. The European physicians also competed with each other: 'Let us not forget that on Java the competition among the doctors grows daily' (W.J. van Gorkom 1904:11). This referred to the competition

between physicians with a lucrative practice at a private company and those who had to work hard for the government, on whom 'exceptional demands of sacrifice' were imposed, keeping them from establishing a private practice. Many European physicians also regarded with envy the popularity of self-help guides written by Indo-European ladies and the use of midwifery instruments by European midwives. As people who treated themselves did not make use of the medical market, the popularity of self-help guides did form a serious threat for some providers.

Despite all the opposition, at the beginning of the twentieth century in an absolute sense Western medical facilities were more frequently used by natives than in 1850. As a result of the ethical policy, more outpatient clinics and native hospitals were available. The missionary hospitals were popular, especially among Christian natives. The Petronella Hospital of the missions was a model for other hospitals. The government increasingly left the management of the hospitals and the training of nursing personnel to private initiatives.

9

Conclusion

A SUCCESS?

The question of to what extent both groups of graduates were capable of acquiring a place on the medical market must be answered in the context of the objective: improving the medical and midwifery care for the population by replacing the *dukun* so detested by the Europeans. The reply cannot be anything but negative: neither the *dokter djawa* nor the native midwives succeeded in replacing the *dukun*. The dominant position of the *dukun* on the native medical market was slightly affected during the period 1850-1915 in the sense that a few more natives did avail themselves of Western medical assistance. The position of the *dukun bayi* on the native midwifery market was and remained untouched; in addition, the Chinese and (Indo-)European women employed their services. When it became clear the intended aim would not be achieved, the government had three options for a response: take additional measures to realize the goal; revise the goal; or stop the project.

With the *dokter djawa* the government soon lost sight of the original aim. Immediately after the start of the training programme, an implicit adjustment was made when the *dokter djawa* was given preference for the post of vaccinator. But when the practice revealed that they were useful as assistant doctors, the government revoked its decision. To achieve the original objective after all, the course was radically improved. The graduates were given their own medicine cases, the working conditions were made more attractive, and the status symbol of the *payung* was awarded.

With the native midwives the government emphatically pursued the original objective. In official documents and debates, the theme constantly stressed was the graduates were to replace the *dukun bayi*.

Circulars sent to the regional administrators with the request to encourage the population to make use of the native midwives can be considered a further step towards achieving the goal. Over the course of time, it was accepted that *dukun bayi* would do the standard deliveries, and the native midwives would be called in only for the difficult cases. The fact that in 1863 obstetric instruments were provided to better equip the native midwives for complications can be seen as the next adjustment, although some felt that this measure was counterproductive because they were afraid the resistance of native women in labour to Western midwifery assistance would increase as a result. The awarding of a fixed allowance in exchange for assisting the population free of charge was meant to encourage the native midwives to follow the original objective. When it became clear that their consumers were still primarily Chinese and (Indo-)European women, the government did not revise the objective; instead, it decided to close the midwives' school provisionally. After a few years, attempts were made to realize the same goal with a different training method. The training of *dukun bayi* was suggested several times, but it remained just a good intention.

The government's measures and adjustments were exclusively targeted on the supply side of the market and ignored the resistance on the demand side. Only one attempt was made to address the population's aversion: employing the *dokter djawa* as an intermediary.

Along with the government, other parties were also invested in the success of the project or undertook actions to make it work as they were convinced of its value. It is doubtful whether administrators had any interest in these programmes other than as part of their duties. They had to recruit students, not an easy task in itself because the functions were new and the position of the *dokter djawa* in the hierarchy of the native civil service remained unclear for a long time. The native administrators were *priyayi*, exclusively men, who knew only too well that the *dukun bayi* were greatly appreciated. The native and European administrators were also charged with calling on the population to make use of the graduates' services. As more than one circular was required to implement this, it shows that with two exceptions (the residents of Purwakarta and Kediri), this duty was not carried out. This does not necessarily mean that the residents doubted the usefulness of the graduates. On Java, 16 of the 21 residents wanted to keep the midwives' school open so that the graduates

could assist the (Indo-)European women. They were willing to adjust the objective, but the government did not cooperate. The administrators had differing opinions about the usefulness of the *dokter djawa*.

THE GRADUATES' ACTIONS

The *dokter djawa* attempted to support the success of the project by arguing in favour of carrying the *payung*, wearing Western clothing and taking advanced courses of study in the Netherlands. Only the efforts exerted to obtain the *payung* attempted to bring realization of the original objective closer. The other two actions focussed primarily on improving their own position and realising further integration with the Western medical world.

There were native midwives who individually tried to realize the original objective and replace the *dukun bayi*. The student Markati called herself a *dukun* to win the trust of her patient. Nji Astjiem arranged a division of tasks with the *dukun*. A midwife from Yogyakarta employed a strategy to deal with the competition of the *dukun bayi* by following the *adat* customs as long as they did not harm the mother and child. A similar strategy was used by H.B. van Buuren and 'his' midwives in the experiment in Kediri. These examples involved occasional actions, which did not lead to a broader implementation. Other agents who were not involved with the school directly, such as the physician Van Buuren and the MP H. van Kol, made serious attempts to permanently establish Western midwifery in the Indies, but the government ultimately assigned its priority to improving the general medical care. Nowhere in the sources are there indications that the Western-trained native midwives ever attempted to strengthen their weak position on the midwifery market as a group. The circumstances for supporting their interests were less favourable than for the *dokter djawa*. As their course was shorter, there was less time to bond as a group. The training on site with a European physician was done as an individual. A 'group' there consisted of one to four young women. A native midwife as a student and as a graduate was practically on her own, and that made it difficult to promote the group's joint interests.

WHAT WAS ACHIEVED?

The fact that the original objective was not realized does not necessarily imply that the graduates did not achieve anything. They were more or less successful in gaining a certain position on the medical market.

The *dokter djawa* were firmly established in 1915: the reorganization Commission had assigned them to carry out the duties of the Civil Medical Service among the population, thus ultimately replacing the European civil physicians. Aside from financial considerations as they were paid a lower salary, there was another aspect: as natives they would be intermediaries introducing Western medicine among their fellow countrymen.

The position of native midwives was less secure in 1915. Increasing numbers of (Indo-)European midwives kept arriving, thus reducing their market share among that population group. In actual fact, the native midwives in the independent Civil Medical Service primarily worked as nurses, which was a useful function. The strong position of the *dukun bayi* among the natives remained unchanged. Even nowadays the *dukun bayi* are still responsible for about 35% of the deliveries in the country, although the government stipulated in 2000 that only trained midwives should be responsible for deliveries (Hennessy, Hick and Harni Koesno 2006:9).

COMPARISONS

COMPARISON OF THE COURSES

Plans to replace the *dukun bayi* existed for a long time. Before 1851 several attempts were made to start a midwives' training course. Replacement of the 'general' *dukun* was not considered before. Several European doctors had native boys as assistants and taught them some medical knowledge, but the government had not gone as far as making a plan for founding a medical school before. Despite the difference in their histories, there were many similarities at the start of both courses. The schools were located next to each other on the grounds of the military hospital in Jakarta, they started practically at the same time, and they had similar aims. In both cases the training was free of charge, and the students and the gradu-

ates received an allowance. It is not surprising that the midwives' was smaller because women in many countries are still paid consistently less than men, even for the same job. The proper behaviour of the trainee midwives and the graduates was closely supervised. Married women were preferred because marriage was considered a guarantee of moral conduct. In the *dokter djawa* school, in contrast, being single was an admissions criterion. Unmarried men could not act immorally because there were no restrictions on their sexual escapades.

In the beginning, the maximum number of students was 20 for the midwives' school and 30 for the *dokter djawa* school. The government apparently expected a greater need for *dokter djawa*. For both courses the maximum enrollment was raised, although this was not necessary. While the number of graduates from both schools was meagre, the midwives' school was closed in 1875 and the *dokter djawa* school was greatly stimulated. It had become clear in the meantime that the *dokter djawa* could fulfil a useful role in the Medical Service, while the work of the midwives remained out of its sight. Within the Medical Service many physicians had been involved with the doctors' course as teachers or director, and they felt a certain connection to the school and students. The support for the *dokter djawa* school was thus greater than for the midwives' school, where all theory lessons in the entire period of its existence were given by the same teacher, the second municipal midwife.

After 1875 there are no longer any similarities between the courses. Enormous investments were made in the *dokter djawa* school: a new building, a permanent teaching staff, and increased enrollment. The midwives' training was a point of public interest, both in the Netherlands and in the Indies, but it didn't lead to anything beyond stirring and sometimes high-flown words.

COMPARISON OF THE GRADUATES

The government concerned itself with the future career of the *dokter djawa* from the beginning. The dilemma was whether they should practise as doctors or as vaccinators. For either career, the graduates were retained for the Medical Service, and it was soon decided to grant them an allowance. For the midwives, arranging an allowance took more effort, and it remained temporary in nature. Graduates of both courses received a case containing medicines and instruments from the govern-

ment at about the same time. With 'externalities' such as the mandatory traditional clothing and the denial of the *payung*, the government wanted to determine the position of the *dokter djawa* in society. The graduates tried to escape from that situation. They insistently requested the right to carry the *payung* and later to wear Western clothing. The sources do not record similar regulations applying to the midwives: *sarung* and *kebaya* were worn by all Javanese and many (Indo-)European women between 1850 and 1915, there was no practical alternative. White uniforms for midwives arrived later.

After the improvements in the *dokter djawa* course in 1875 and in 1902, the graduates were slowly given more tasks and responsibilities. Ultimately, they were even considered in 1908 by the reorganization Commission as the basis of the new Civil Medical Service. They were also employed by private companies. These market forces led to shortages, but the government did not employ female doctors to help fill the void. It is true that young women were admitted to STOVIA in 1912, but they could not hope for a position with the government.

The midwife graduates could move freely on the medical market earlier than the *dokter djawa*. Although the government allowance was meant to support them while working in the native midwifery market, they offered their services – often while retaining their allowance – to the highest bidder: (Indo-)Europeans and Chinese. After 1910, in agreement with the proposal of the reorganization Commission, the native midwives were obliged to work as nurses in hospitals if they had no deliveries to assist. Thus, just like the native doctors, they were conscripted into the Civil Medical Service.

The comparison of both courses and their graduates highlights various similarities and differences. At the start they were so similar that there seemed to be just one project, but that was not the case. The government never considered a collaboration between the courses or between the groups of graduates. Over time the question arose of whether general medical care or midwifery assistance should take priority. Through Van Buuren's tenacity it seemed for a while as if midwifery would gain the upper hand, but ultimately the choice fell on improved general medical care for the population. The native doctors were assigned a major role in the new system. Regarding the differences, we note that gender was often decisive, especially with the emphasis on the behaviour of the midwives as models of decency. The low opinion European physicians had of mid-

wives can be read between the lines and was revealed in all its fervour in the horror stories told about the *dukun bayi*.

RE-EXAMINING THE CONCEPTUAL FRAMEWORK

The conceptual framework of this book consists of three associated elements: the medical market model, the figure of the intermediary and the 'rules of the game'. The medical market model is used to describe the markets for medical goods and services in the archipelago. It allows us to give all providers of medical care a role, the standard and the alternative, the established and the newcomers, the native and the Western. It gives the consumers an equivalent position to the providers. The differences between the population groups in the archipelago were further emphasized by the colonial politics that divided them into three legal categories. Just like in the rest of the society, those categories led to segmentation of the medical market: there were several markets of medical services and goods, with midwifery occupying its own position. The distances and the poor infrastructure on Java and throughout the archipelago made a multitude of different markets unavoidable. The segments were not isolated bastions, though, movement between them was possible and did occur.

Comparison of the medical market in 1850, on the eve of the founding of both schools, and the one in 1915 at the start of a new age in health care, reveals that in the rather brief period of 65 years, sizeable shifts had taken place. Because of colonial politics, more natives had access to the European medical market. The infrastructure had improved, more natives had been educated in Western primary schools, and native civil servants with a monthly salary of less than 150 guilders were entitled to free Western medical care. The colonial policy had changed and helped bring new providers into the market: the graduates of both courses, the private companies, the missions and the outpatient clinics. In addition, the number of hospitals grew. The government outpatient clinics reached many natives in both the towns and the villages. It is likely that the fact they were run by a *dokter djawa* or a native *mantri*-nurse promoted their acceptance. But along with change, we also see a high level of continuity: the *dukun* remained universally present. In total contrast to what was commonly assumed, the European physicians were certainly still interested in the native medicines and the treatment methods of

the *dukun* in the field of massage and abortion until 1900. The changes mainly left the native midwifery market unaffected. The government and the entrepreneurs acquiesced to this fact: native civil servants and female coolies were not entitled to free Western midwifery assistance.

At first glance, the competition among the small number of providers is surprising because there was plenty of work to go around. In practice, there was more rivalry in 1915 than in 1850. The European physicians were extremely irritated with the Indo-European ladies, their recipe books and practices. Despite their strong position, the *dukun* spread rumours about Western medicine and its practitioners, both European and native. On the other hand, the *dukun* were reviled by Western physicians. The numerical superiority of the *dukun* could have led to Western-trained doctors joining forces, but they had too little in common to act with solidarity. The European doctors had trouble accepting the *dokter djawa* from the outset and did not consider them worthy colleagues. Initially, they felt they formed a threat to Western medicine and thus to their own position, and later to their monopoly of the European medical market. This attitude was apparent in the reactions of the Bond van Geneesheeren in Nederlandsch-Indië and of the Vereeniging tot Bevordering der Geneeskundige Wetenschappen in Nederlandsch-Indië to the government's proposal to allow the *dokter djawa* to take the medical exam in the Netherlands. This led to a group of native doctors alongside the European physicians with the same Dutch doctor's diploma. The European physicians responded as was usual within the traditional guilds: they tried to exclude the outsiders. The same behaviour is reflected in the revision of the statutes of the Vereeniging tot Bevordering der Geneeskundige Wetenschappen in Nederlandsch-Indië, which did not allow native doctors to be full members from then on, but only associate members (J. de Haan 1902:xv). The native doctors responded quickly: in 1909 they established their own professional society. Instead of working together to oppose the *dukun*, the two groups of Western-trained doctors organized themselves along racial lines. The competition raging in the Netherlands between male doctors and midwives, which was primarily expressed in the ban against midwives using instruments, was repeated to some extent in the Indies as well. Some physicians there also pointed out that midwives were forbidden from using obstetric instruments.

The medical market formed the context in which the graduates of both courses had to operate. If this study had not placed the two groups

in this context, their roles could have been overestimated. By employing the medical market model, it became clear that their roles may indeed have been modest, but it was very specific: only they could act as intermediaries between their fellow countrymen and Western medicine. The government understood that the introduction of Western medicine to replace the *dukun*'s methods would have a greater chance of success through the employment of natives than of Europeans. Occasionally, statements were made that good Western medical care, whether provided by native doctors or not, was meant to win the natives' trust in the Dutch rule. Ultimately, the *dokter djawa* took up the role of intermediary on their own. They also mediated in the opposite direction as they provided European physicians with information about native remedies (for example, abortifacients) and methods such as massage, opium use among the population and poisoning techniques.

Another benefit of the medical market model is that it gave space to the interests and considerations of patients, even though hardly any sources mention the demand side of the market. Consumers could reject a supplier. For example, some natives avoided vaccination or refused to call for the help of a Western-trained doctor during a difficult delivery. The consumers were only open to another medical approach when their lifestyles changed. As a result of the influence of Western education, the natives began to consider Western medical care.

The medical market model shows that despite all these hindrances, there were definite market forces at work. The prevalent view that the three main ethnic groups on Java – Natives, Chinese and Europeans – had recourse only to their respective 'ethnic medical market' is too simplistic. The situation was much more complex: while many patients identified with one particular ethnic medical system, others were more eclectic and pragmatic in their choice of practitioner. 'Healer hopping' appears to have been widespread among the three main ethnic groups, with patients making use of a range of healing practices, not just their own. In most reported cases healers from another ethnic group were consulted only if one's own familiar practitioner had been tried and failed. The evidence shows crossovers in all directions: not only natives were healer hopping, but Europeans engaged in it as well. Indigenous medicinal herbs assumed an important position as they were applied by practitioners of all ethnic groups.

In the medical market different factors influenced the negotiation process, the game, between consumers and care providers. Some sociocultural rules were so strongly entrenched that they could withstand all changes on the supply side, including the imposed government measures.

The concepts and customs associated with disease form part of the public's world view and religious convictions. It is therefore understandable that the natives were averse to the Western medical care of the *dokter djawa* and the native midwives, even if it was provided free of charge. The suppliers of Western medical care were also stuck in the paradigm of their concepts of health and disease. In just a few cases it was apparent that they were aware of this and open to change or willing to engage an intermediary. Concepts from the *adat* concerning deliveries were especially deeply rooted. The complaints about the refusal to pay a fee for services provided for a socially-superior consumer appeared to fade over time, but women's objections to being treated by men increased. Bit by bit, compensation was provided by organizing more female medical assistance.

The government was certainly involved in the medical market. Around 1850 it did not consider the welfare of the population one of its tasks. By introducing two new groups of medical professionals to the native medical market, the state was actually going against its own principles. By 1915 the government had accepted responsibility for the health of the population as a whole, and thus also of the natives. An independent Civil Medical Service was set up. In addition, the government collaborated with private initiatives: missionary societies as well as private groups established hospitals and training courses, partly subsidized by the government. Although from 1900 it assumed responsibility for the welfare of the population, the government did not go so far as to register the native and Chinese healers and supervise their quality. It was similarly unwilling to coerce the population to make use of the services of the *dokter djawa* or the native midwives. The government must have assumed that the Western medicine would 'sell itself', given its superiority. The economic factor, the affordability of Western medical care, was not an impediment because it was freely available.

The establishment of the two courses did not fit the colonial policy of the time. There are no known sources in which the government was made aware of this inconsistency, but the danger of educating natives

was emphasized. Several times it was stated that the government had done more than enough in providing free training; it was not felt necessary to pay a salary as it would only make the graduates lazy and idle. The resistance against the *dokter djawa* course fit in the 'tradition' of keeping them dumb. People were afraid that educated natives would lose their roots and oppose the colonial authority. This fear did not extend to educated women; there were no complaints in this respect about the midwives' training. Ultimately, the critics were proved right: STOVIA became a breeding ground for nationalism. In 2008 the 100-year jubilee of the establishment of the first nationalist movement, Boedi Oetomo, was celebrated at STOVIA. The *dokter djawa* used their education not only for their own careers but also for national consciousness raising.

FINAL WORDS

For the Netherlands Indies a description of the pluralistic medical practice and its sufferers was missing; this book aims to fill the gap. Comparison of the situation in 1915 and that in 1850 clearly reveals the changes associated with the process of Westernizing parts of the Netherlands Indies. The native midwifery market was unaffected by the changes and is thus outside the modernization process.

It is striking that non-medical, primarily political factors also decisively influenced the changes in the medical field. W. Bosch, a doctor with pronounced political ideas and a vision of public health care for the population as a whole, anticipated the ethical policy. The debates at the time about the courses and the graduates illustrate the attitudes of the colonial policy, which varied from discrimination against to emancipation of the natives. At the end of the period investigated, the *dokter djawa* laid the first stone of the nationalist movement: the emancipation had succeeded, but it is debatable whether the government of that time was happy with the outcome.

For Western medical care's acceptance by the natives, it had to form part of the general development; likewise, to ensure its introduction, Western medicine had to be imbedded in an all-encompassing government policy. To highlight this inextricable connection, the medical market model is very well suited. It produces benefits for research into the

training and careers of the Western-trained native doctors and midwives in the Netherlands Indies. Certainly if the intermediary has a place in the concept, it is eminently applicable in a colonial situation.

Glossary

adat	custom; customary law
assistent-resident	civil servant, one rank below the resident, often based at the capital of a regency
atap	roof covering from palm leaves
Batig Slot	colonial budget surplus
bupati	regency head, regent
Bijblad	supplement to the Government Gazette (Indisch Staatsblad)
controleur	lower Dutch official responsible for a number of districts
demang	district chief
dokter djawa	native doctor
dukun	native healer
dukun bayi	traditional birth attendant
dukun beranak	traditional birth attendant
herendiensten	corvée labour duties
herendienstplichtigen	those who do the corvée labour
Indische arts	Indies doctor
Inlandsche arts	native doctor
jaksa	public prosecutor
kain	wraparound skirt (for men)
kampong	(urban) settlement
kebaya	light cotton blouse worn over a sarong or wraparound skirt
mandur	foreman
mantri	lowest rank in the indigenous civil service; like a supervisor; also nurse
mantri cacar	vaccinator
Mas	lowest rank in native nobility
Nonja	form of address of married (Indo-)European women

oewang	literally money (uang in modern Indonesian); in the colonial time also a ten-cent coin
orang beranak	literally man/woman who helps with a birth delivery
patih	assistant to bupati
payung	parasol or umbrella
penghulu	Islamic religious leader
pesantrèn	Islamic religious schools
Principalities	Vorstenlanden (Surakarta and Yogyakarta)
priyayi	native elite
Raad van Indië	Council of the Indies
Raad van State	Council of State
Raden	rank in native nobility
Raden Adjeng	rank in native nobility for unmarried women
Raden Ayu	rank in native nobility for married women
regent	Javanese official of aristocratic background, head of a regency district, bupati
resident	chief colonial administrator of a residency
	National training school for military physicians, Utrecht
Sambang	an angry spirit
sarong	wraparound skirt (for women)
selamatan	sacrificial meal
sirih	plum wad
wedono	district head, the lowest formal level of the indigenous administrative hierarchy, demang
zakat	tax required by Islam (one of the 5 pillars)

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Healers on the colonial market is one of the few studies on the Dutch East Indies from a postcolonial perspective. It provides an enthralling addition to research on both the history of the Dutch East Indies and the history of colonial medicine. This book will be of interest to historians, historians of science and medicine, and anthropologists.

How successful were the two medical training programmes established in Jakarta by the colonial government in 1851? One was a medical school for Javanese boys, and the other a school for midwives for Javanese girls, and the graduates were supposed to replace native healers, the dukun. However, the indigenous population was not prepared to use the services of these doctors and midwives. Native doctors did in fact prove useful as vaccinators and assistant doctors, but the school for midwives was closed in 1875. Even though there were many horror stories of mistakes made during dukun-assisted deliveries, the school was not reopened, and instead a handful of girls received practical training from European physicians. Under the Ethical Policy there was more attention for the welfare of the indigenous population and the need for doctors increased. More native boys received medical training and went to work as general practitioners. Nevertheless, not everybody accepted these native doctors as the colleagues of European physicians.

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